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MAY 29, 1915.

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Fig. 535

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Fig. 537

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Fig. 538

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Fig. 539

Fancy coloured lithograph

Fig. 543

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Fig. 898

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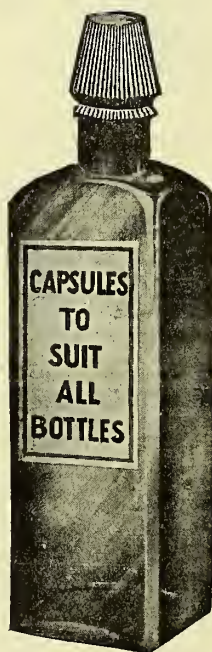
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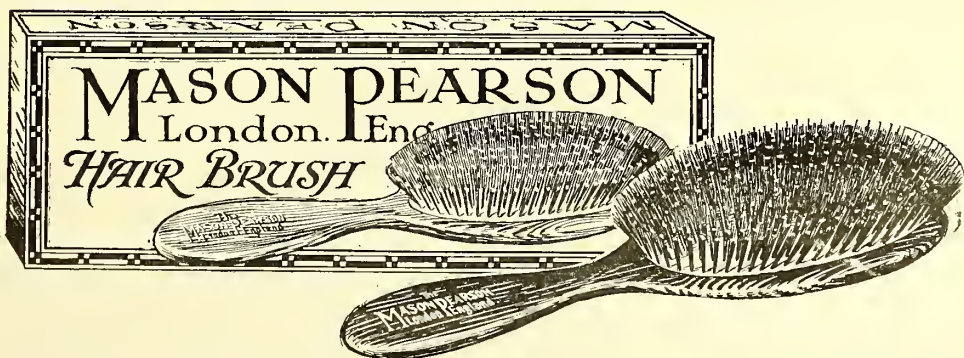
Owing to the unexpectedly large demand for the Mason Pearson Hair Brush, following upon our announcements in the recent issues of the "*Chemist and Druggist*," the date of the full front page advertisement in the "*Daily Mail*" has had to be deferred from May 29 to

JUNE 12

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Alkaloids Burroughs Wellcome & Co. Rysdale, J. W., & Sons Rysdale, J					

Educational Institutions

Bath & West of England College
Birmingham and Midland College
British Optical Institute
College of Preceptors
City College
Liverpool School of Pharmacy
London College of Pharmacy
Northern College of Pharmacy
School of Pharmacy
South of England College
Westminster College

Effervescent Preparations

Evansons Lescher & Webb, Ltd.
Elastic Gum Insts.
Mason Bros. & Chapman

Elastic Hosiery

Ayrton, Saunders & Co., Ltd.
Bailey, W. H., & Son
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Wood, Vincent

Elect. Novelties

Ward & Goldstone
Wright, Archd., J., Ltd.

Electroplated Toilet Goods

Scott, Adolph

Emery and Cloth

Oakey, J., & Sons, Ltd.

Emetine Salts

Carnegie Bros.
Macfarlan, J. F., & Co.
Walfen & Sons, Ltd.

Emulsifiers

Bennett, Sons & Shears, Ltd.
Wilkinson, S. W., & Co.

Emulsions, C.L.O., &c.

Ayrton, Saunders & Co., Ltd.
Baiss Bros. & Stevenson, Ltd.
Blackie, Robert
Browning, Wm., & Co.
Cupal, Ltd.
Faulding, F. H., & Co.
Parke, Davis & Co.
Scott & Bowne, Ltd.
Stevenson, H. E., & Co.
Wyleys, Ltd.

Enamelled Hospital Requisites

Orme, Evans & Co., Ltd.

Endolytic Tubes

Fletcher Fletcher & Co. Ltd

Enemas

Burge, Warren & Ridgley, Ltd.
Ingram, J. G., & Son
Maw, S., Son & Sons
Warne, W., & Co., Ltd.

Epsom Salts

Blythe, Wm., & Co., Ltd.
Howards & Sons, Ltd.
May & Baker, Ltd.

Essences

Sol. and Fruit
Alliance Drug Chem.
Barnett & Foster
Boake Roberts & Co., Ltd.
Bnsh, W. J., & Co., Ltd.
Hay, Wm., Ltd.
London Essence Co.
Stevenson & Howell, Ltd

Ethers

Baiss Bros. & Stevenson, Ltd.
Duncan, Flockhart & Co.
Howards & Sons, Ltd.
Macfarlan, J. F., & Co.
May & Baker, Ltd.
Eyrer, T., & Co., Ltd.
White, A., & Sons

Eucalyptus Oil

British Drug Houses, Ltd., The
Stevenson, H. E., & Co.
Tasmanian Eucalyptus Oil Co.

Evaporators

Forehaw, E., & Son, Ltd.

Extract of Herbs

Newhall & Mason
Potter & Clarke, Ltd.

Extracts (Medicinal)

Allen, Stafford, & Sons, Ltd.
Burroughs Wellcome & Co.
Evansons Lescher & Webb, Ltd.
Gathergood's Exr.
Hewlett, C. J., & Son, Ltd.
Parke, Davis & Co.
Ransom, W. & Son, Ltd.

Factory, &c., Sites

Great Western Railway

Feeding Bottles

Bush, H. W., & Co., Ltd.
Law, S., Son & Sons
Schutze, F., & Co., Ltd.

Filling Machines

Forgrove Machinery Co., Ltd.
Jackson, J. G., Ltd.
Roberts Pat. Filling Mach Co

Filter Papers

Ford, T. B., Ltd.

Filters

British Pasteur-Chamberland Filter Co.
Fulham Pottery & Cheavin Filter Co., Ltd.

Finger Stalls

Solport Bros.

Flycatchers

Alahastine Co. (British) Ltd.
Ford, Shapland & Co.
Kear Bros., Ltd.
Smith, J. H., & Co.
Strong, Christy

Foods, Invalid, &c.

Allen & Hanburys, Ltd.
Bell (John), Hills & Lucas, Ltd.
Benner's Food, Ltd.

Foot Appliances

British Casing Co. (1911), Ltd.
British Milk Products Co., Ltd.
Colman, J. & J., Ltd.
Deans, Logan & Co., Ltd.

Fruit Drink

McGlashan, D.
Fuller's Earth
Mumford, G. S., & Sons

Fumigators

Sanitas Co., Ltd.
Gallic Acid
Mallinckrodt Chem. Works

Gauzes

Bailey, R., & Son

Glycerin

Price's Patent Candle Co., Ltd.
Glycerophosphates
Monsanto Chemical Works

Grease Paints

Osborne, Garrett & Co.
Queich, Henry C., & Co.

Grease Remover

Perkin & Co., Ltd.
Grinders, Drug, &c.
Allen, Stafford, & Sons, Ltd.

Gripe Water

Woodward, W., Ltd.
Gums
Pink, F., & Co.

Hair Dyes

Harker, C.R., Stag & Morgan
Blackie, Robert
Hair Preparations
Alexandre, L.

Hand Carts, Trucks, &c.

Crawe & Co.
Turner, J.

Hat Cleaners

Cox, Arthur H., & Co., Ltd.
Miner's Chemical Co.
Senior, A.H., & Co.

Hat Dyes

Whittaker & Co.

Herbs

Potter & Clarke, Ltd.
Salle, H., & Co.

Hexamethylene

Reitmeier, Calburn & Kindersley, Ltd.

Homeopathic Medicines

Ashton & Parsons, Ltd.
Keene & Ashwell, Ltd.
Leath & Ross

Honey

Western Honey Co.

Horse Remedies

Harvey & Co. (Dublin), Ltd.

Hospital Furniture

Gray & Solby
Hospital Ware (Semi-porcelain)
Meinecke & Co.

Hot Air Douches

Ward & Goldstone
Kingsley Hotel
Thackeray Hotel

Hot Water Bottles

Bailey, W. H., & Son
Berton Arthur, Ltd.
Burge, Warren & Ridgley, Ltd.

Hot Water Bottles

Galen Manfg. Co., Ltd.
Goodrich, B. F., Co.
Ingram, J. G., & Son

Hot Water Bottle Stoppers

Rowe, T. Wilford
Hydrogen Peroxide
May & Baker, Ltd.

Hypophosphites

Sanitas Co., Ltd.
Tyrer, T., & Co., Ltd.

Ink, Dichroic

Bewley & Draper, Ltd.
Insecticides
Christy, T., & Co.

Insect Powder

Keating, Thoma
Potter & Clarke, Ltd.
Raines & Co.

Iodides

Tyrer, T., & Co., Ltd.

Junket Powder

Armour & Co., Ltd.

Lanolin

Christy, T., & Co.
Hillcrest Oil Co., Ltd.
Howard Lloyd & Co., Ltd.

Lard

Ewen, J., & Sons
Lavender Oil
Allen, Stafford, & Sons, Ltd.

Lavender Water

Bush, W. J., & Co., Ltd.
Gosnell, John, & Co., Ltd.

Leeches

Allen & Hanburys, Ltd.

Ligatures

Seahmry & Johnson
Lime Juice and Cordial
Evansons Lescher & Webb, Ltd.

Linseed, Crushed

Mumford, G. S., & Sons
Lints
Liverpool Lint Co.

Liquorice Juice

Boehm, F., Ltd.
Jackson, Ernest, & Co.
Solazzi

Liquors, Conc.

Fletcher, Fletcher & Co.
Lithia Salts
British Drug Houses, Ltd., The

Lozenges

Denonah, Jules, & Co.
Guest, Thos., & Co.
Jackson, Ernest, & Co.

Loofahs

Hall Forster & Co., Ltd.
Internl. Sponge Importers, Ltd.
Solport Bros.

Lysoles

Burt, Boulton & Haywood, Ltd.
Evansons Lescher & Webb, Ltd.

Machinery, Pharmacal

Allen & Hanburys, Ltd.
Bennett, Sons & Shears, Ltd.
Blair Campbell & McLean, Ltd.

Malt Extract and Preps.

Allen & Hanburys, Ltd.
Blackie, Robert
British Drug Houses, Ltd., The

Magnesia and Preps.

Henry, T., & W.
Howard & Sons, Ltd.
International Chem. Co., Ltd.

Marking Ink

John Bond (Crystal Palace)
Measures, Graduated
Bush, H. W., & Co., Ltd.

Meat Extracts

Armour & Co., Ltd.
Brand & Co., Ltd.
Tooth's Extract of Meat Co.

Medical Coils

Ward & Goldstone
Menthol
Carnegie Bros.

Mercurials

Alliance Drug & Chemical Co.
Howards & Sons, Ltd.
May & Baker, Ltd.

Metal Clips

Griffin, John J., & Sons, Ltd.
Methylarsenates
Roques, Ferdinand

Methylated Spirit

Burroughs, J., Ltd.
Preston's Liverpool Distillery
Randall & Son, Ltd. [Co., Ltd.]

Metric Weights

Avery, W. & T., Ltd.
Mineral Waters
Apolinaris & Johannis, Ltd.

Mixers and Sifters

Gardner, Wm. & Sons (Glos.) Ltd.
Motor Goggles
Darton, F., & Co.

Naphthalene

Burt, Bolton & Haywood, Ltd.
Night Lights
Price's Patent Candle Co., Ltd.

Oils, Essential

Allen, Stafford, & Sons, Ltd.
Alliance Drug & Chemical Co.
Boake Roberts & Co., Ltd.

Oils, Mineral, Patty, &c.

Allen, Stafford, & Sons, Ltd.
Boehm, F., Ltd.
Hertz & Co.

Ointments

Blackie, Robert
Burgess, E.
Oldfield, Pattinson & Co.

Olive Oil

Ferrer, J., & Co.
Guillevie, E., & Co.

Optium

Oldfield, Pattinson & Co.
Optical Goods
Darton, F., & Co.

Optical Tuition

British Optical Institute
College of Optics
Spectacle Makers Company

Orange and Quinine Wine

Hobson, Joseph, & Son
Iris & W., & Co.
Miller, A., & Co., Ltd.

Organic Solvents

Hopkin & Williams, Ltd.
Organo-Therapeutic Preps.
Armour & Co., Ltd.

Otto Rose (French)

Guillevie, E., & Co.
Bush, W. J., & Co., Ltd.
Guillevie, E., & Co.

Otto Rose (Synth.)

Kerfoot, Thos., & Co.
Stevenson, H. E., & Co.
Warwick Bros., Ltd.

Oxygen Baths

Wright, Layman & Umney, Ltd.
Oxalates
Oppenheimer, Son & Co., Ltd.

Paper Containers

Standard Tablet & Pill Co., Ltd.
Paramm
Browning, Wm., & Co.

Plasters

Chesbrough Mfg. Co.
Stern Sonneborn Oil Co., Ltd.
Wiener, R. O., & Co.

Packed Goods

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
Blackie, Robert

Patent Agents

Barker, R. W., & Sons
Kaworth, John E.

Peppermint Oil

Allen, Stafford, & Sons, Ltd.
Bush, W. J., & Co., Ltd.
Dodge & Olcott Co.

Peptone

Armour & Co., Ltd.
Fairchild Bros. & Foster
May & Baker, Ltd.

Perfume Materials

Bona Ventura, F., & Co.
Bush, W. J., & Co., Ltd.
Guillevie, E., & Co.

Perfumes

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
British Drug Houses, Ltd., The

Petroleum Jelly

Chesbrough Mfg. Co.
Edison, W. M., & Co.
Meade-King, Robinson & Co.

Phenacetic

Greiff, R. W., & Co.
Monsanto Chemical Works
Reitmeier, Calburn & Kindersley, Ltd.

Phosphorus and Preps.

May & Baker, Ltd.
Tyrer, T., & Co., Ltd.

Photo. Chemicals

Greiff, R. W., & Co.
Lane-Hall, E., & Co.
Reitmeier, Calburn & Kindersley, Ltd.

Photo. Postcards

Rajar, Ltd.

Pill Makers

Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Howard Lloyd & Co., Ltd.

Pilocarpine

Roques, Ferdinand
Plasters
Dalmas, A. de St., & Co.

Plate Powder

Griffiths, T. D., & Co.
Pleated Paper
Darter, Wilkinson & Co.

Pocket Lamps

Ward & Goldstone
Polishes (Various)
Bradley & Bourdais

Postal Boxes

Globe Box Co.
Hertz & Co.
Robinson & Sons, Ltd.

Powder Paper

Papier Poudre Ltd.
Printed String
Goshieron, John, & Co.

Printers

Ford, Shapland & Co.
Sutley & Silverlock, Ltd.
Townsend, J., & Sons

Proprietary Articles

Angier Chemical Co., Ltd.
Anglo-American Chem. Co., Ltd.
Ashton & Parsons, Ltd.

Radiation

Ward & Goldstone
Radiation
Ward & Goldstone

Radiation

Ward & Goldstone
Radiation
Ward & Goldstone

Radiation

Ward & Goldstone
Radiation
Ward & Goldstone

Radiation

Ward & Goldstone
Radiation
Ward & Goldstone

Plate Powder

Griffiths, T. D., & Co.
Pleated Paper
Darter, Wilkinson & Co.

Pocket Lamps

Ward & Goldstone
Polishes (Various)
Bradley & Bourdais

Postal Boxes

Globe Box Co.
Hertz & Co.
Robinson & Sons, Ltd.

Powder Paper

Papier Poudre Ltd.
Printed String
Goshieron, John, & Co.

Printers

Saccharin Saccharin Corporation, Ltd. Sulley Acid and Salicylates W. J., & Co., Ltd. Sanitary Towels Atchall Bros. & Barclay, Ltd. Santonine Moberg, I. L. Saponin W. W., Ltd. Scientific Apparatus Son & Co., Ltd. J. J. J. J. J. J. J. J. J. Sales and Weights W. T. & T., Ltd. Sea Salt Son & Co., Ltd. Seed Dressing Arthur H. J. J. J. J. Seeds J. J. J. Serums and Antitoxins J. J. J. J. J. J. Shampoo Powders J. J. J. Shares J. J. J. Sheep Dips J. J. J. Shop Fittings J. J. J. Shoulder Straps J. J. J. Silverware Goods J. J. J. Soap Plant J. J. J.	Soaps, Toilet, &c. Allen & Hanburys, Ltd. Bell (John), Hills & Lucas, Ltd. Brannley, H., & Co., Ltd. Cheshbrough Manfg. Co. Christy, Thos., & Co. Cook, E., & Co., Ltd. Erasmo Co., Ltd. Eucriy, Ltd. Evans Sons Lescher & Webb, Ltd. Ewan, James, & Sons Faulding, F. H., & Co. Field, J. O., & J., Ltd. Gossnell, John, & Co., Ltd. Harrison, C. W. Hovenden, R., & Sons, Ltd. Lescol Perfumery Co. Pears, A. & F., Ltd. Price's Patent Candle Co., Ltd. Resinol Chemical Co. Vinolia Co., Ltd. Wright, Layman & Umney, Ltd. Sodium Bicarbonate Brunner, Mond & Co., Ltd. Howards, Sons, Ltd. Sodium Salicylate Read, Holliday & Sons, Ltd. Soothers Newbery, F., & Sons, Ltd. Schutze, F., & Co., Ltd. Spartaine Roques, Ferdinand Spectacles Dorton, F., & Co. Maw, S., Son & Sons Nitsche & Gunther Optical Co., Ltd. Spermaceti Price's Patent Candle Co., Ltd. Sphygmometers Hicks, James Spices (Ground) Allen, Stafford, & Sons, Ltd. Goodall, Backhouse & Co. Spirit of Wine Burrough, J., Ltd. Calder, James, & Co., Ltd. Preston's Liverpool Distillery Co., Ltd. Sponges Internl. Sponge Importers, Ltd. Newbery, F., & Sons, Ltd. Sprays Berton & Stone, Ltd. Burge, Warren & Ridgley, Ltd. Christy, Thos., & Co. Hovenden, R., & Sons, Ltd. Maw, S., Son & Sons Parker, Davis & Co. Sangars Toogood, Wm., Ltd. Sprinkler Corks Betts & Co., Ltd. Spruce Beer Hohson, Joseph, & Co. Starch Mumford, G. S., & Sons	Stills Bennett, Sons & Shears, Ltd. Dore, John, & Co. Forshaw, E., & Son, Ltd. Stokes, F. J., Machine Co. Stoppers Rowe, T. Wilfrid Stipendium Stopper Co. Strychnine Carnegie Bros. Surgical Appliances & Dressings Allen & Hanburys, Ltd. Bailey, R., & Son Bais Bros. & Stevenson, Ltd. Berton, Arthur, Ltd. Burgoyne, Burdidge & Co. Burroughs Wellcome & Co. Bush, Henry W., & Co., Ltd. Carnegie Bros. Christy, Thos., & Co. Cuxson, Gerrard & Co., Ltd. Dalmas, A. de St., & Co. Galen Manfg. Co., Ltd. Gimber, W., & Son Gray & Selby Hayes, G., & Co. Liverpool Lint Co. Macfarlan, J. F., & Co. Mason Bros. & Chapman Maw, S., Son & Sons May, Roberts & Co., Ltd. Robinson & Sons, Ltd. Seabury & Johnson Southall Bros. & Barclay, Ltd. Thermogene Co., Ltd. Van Horn & Sawtell Vernon & Co., Ltd. Vernon, Will, & Sons Warne, W., & Co., Ltd. Wood, Vincent Woolley, J. & Sons & Co., Ltd. Surgical Tubes (Rubber) Goodrich, E. F., Co. Suspensories Bailey, W. H., & Sons Synthetic Prods. Naef, M., & Co. Symphons Barnett & Foster Camwell, Ltd. Idris & Co., Ltd. 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A RELIABLE HOUSE FOR
All Pharmaceutical Preparations.

CONCENTRATED WATERS
 CONCENTRATED INFUSIONS.

B.P. Tincture.

OPIUM

Aqueous
 Tincture.

Syr. Glycerophosph. Co.

LIQUID EXTRACTS.
 LEVIGATED OINTMENTS
 ESSENTIAL OILS.

"Silver Churn" Dairy Specialities.

Special Prices to Large Buyers.

Write for List.

MANCHESTER.

Some of the "Vaseline" Specialities and their Prices.

Trade Mark Registered

Yellow.

PENNY TINS	7/- per gross.
TWOPENNY TINS	13/- "
No. 1 size, in boxes of 1 gross	18/6 "
" 1 " " 3 dozen	18/9 "
" 2 " " 1 "	37/- "
Collapsible tubes, No. 1 size, 2/6.	No. 2 size, 5/- doz.
No. 1 size, bottle, in cardboard case	3/- per doz.
" 2 " " " "	5/- "
1/2-lb. tins, round	6/3 "
1 " " square	10/6 "
5 " " " "	32/- "
10 " " " "	5/4 per tin.
25 " " " "	13/- "
50 " " " "	25/- "

White.

Twopenny Tins (three doz. in box)	13/6 per gross.
Collapsible tubes, No. 1 size	3/4 per doz.
" " " 2 "	5/3 "
Blue Seal, in bottle, carton	3/6 "
No. 1, 3-oz. size, in cartons	6/- "
" 2, 6-oz. " "	10/- "
1/2-lb. tins, round	10/- "
1 " " square	17/- "
5 " " " "	60/- "
10 " " " "	9/6 per tin.
25 " " " "	23/- "
50 " " " "	44/- "

Red or Veterinary.

1/2-lb. tins, round	4/- per doz.
1 " " square	6/8 "
5 " " " "	22/- "
10 " " " "	3/6 per tin.
25 " " " "	7/6 "
50 " " " "	13/4 "
Half-barrels, about 1 1/2 cwt.	28/- per cwt.
Barrels, about 3 cwt.	24/6 "

Carbolated-Veterinary.

1-lb. tins	7/- per doz.
5 " " "	2/- per tin.
10 " " "	3/8 " "

Sulpho for Dogs.

In jars	9/3 per doz.
In 5-lb. tins	4/8 each.
10-lb. tins	8/- each.

White Liquid Petroleum.

No. 0 size bottle	8/3 per doz.
" 1 " "	16/6 "
" 2 " "	24/9 "

Analgic

9/- per doz. tubes.

Borated 4/6, 7/6 "

Camphorated 5/-, 7/6 "

Capsicum 5/7, 9/- "

Carbolated 4/3, 7/6 "

Mentholated 5/7, 9/- "

Oxide of Zinc 5/7, 9/- "

Collapsible tubes, including Government Stamp.

Perfumed White.

Collapsible Tubes	4/3
No. 1 (bottle in carton)	8/3 per doz.
" 2 size, handsome bottle in carton, with glass stoppers	12/6 "

Hair Tonic.

No. 1 size	8/9 per doz.
" 2 " "	17/6 "

Pomade.

No. 1 size, in boxes of 1 gross	20/- per gross.
" 1 " " 3 dozen	20/6 "
" 2 " " 1 "	62/- "
Collapsible Tubes	2/9 per doz.
No. 1 size, bottle, in cardboard case	3/10 "
" 2 " " "	7/9 "
White and Quinine Pomade	8/3 "

Perfumed Oil.

One size, in bottles (for the Hair)	6/9 per doz.
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"Vaseline" Soaps.

UNSCENTED.

3d. tablets, boxes of 1/2 doz. tablets,	27/- per gross tablets.
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PERFUMED.

3d. tablets, boxes of 1/2 doz. tablets,	27/- per gross tablets.
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SUPERFINE.

Delicately perfumed, box of 3 tablets,	5/- per doz. tablets.
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TAR.

3d. tablets, boxes of 6 tablets	27/- per gross tablets.
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CHESEBROUGH MANFG. CO. (CONSOLIDATED), NEW YORK,
42 HOLBORN VIADUCT, LONDON.

Complete Price List sent on application.

PHARMACEUTICAL AND PHOTOGRAPHIC PRODUCTS

R.W. Greeff & Co.,

offer at lowest prices the
following products manufactured
in the United Kingdom, Allied
and Neutral Countries.

(WHOLESALE QUANTITIES ONLY)

Acetyl Salicylic Acid	Lithia Carbonate
Bromide of Potassium	Lithol (Ichthyol sub.)
Bromide of Sodium	Mercurials
Bromide of Ammonium	Methyl Sulphonat
Chloral Hydrate	Peppermint Oil
Cinchonine Sulphate and Muriate	Pepsine
Cinchonidine Sulphate	Phenacetin
Cocain Hydrochlor and Puriss	Phenazone
Coumarin Crystals	Pyrogallic Acid
Creosote Carbonate	Phenolphthalein
Diamidophenol Hydrochlor	Potassium Sulpho-Guaiacolate
Formaldehyde	Quinine
Glycerine	Resorcine
Guaiacol Carbonate	Sugar of Milk
Heliotropin	Tannic Acid
Hexamine	Tannin Albuminate
Hydroquinone	Theobromine Pure Alkaloid
Isarol (best Ichthyol substitute)	Vanillin

R.W. Greeff & Co.,

THAMES HOUSE, QUEEN STREET PLACE,
LONDON, E.C.

TRADE MARK

A GOOD LINE FOR CHEMISTS.

FRAME FOOD

ON P.A.T.A. LIST. SHOWCARDS FREE.

FRAME FOOD CO., Standen Road, Southfields, London.

SANAPHOS

Anorganically Phosphated Milk Product prepared under strict scientific control.

A Reconstructive Nerve Food
MADE IN ENGLAND

NUTRIENT, RESTORATIVE and ACTIVATING

Effectively replaces the Product of an Alien Enemy

Fixed Retail Prices: 1/-, 1/6, 2/6, 5/-. Wholesale Prices: 8/6, 12/9, 21/-. 42/- per doz. The above prices show a net profit to the Distributor of over THIRTY PER CENT. ON SELLING PRICE & OVER 40% ON COST. Special Discounts for Large Quantities.

For Samples & all Particulars apply **THE BRITISH MILK PRODUCTS CO., Ltd.**
69 MARK LANE, LONDON, E.C.

INDICATIONS:
Mental and Physical Fatigue, and Nervous Breakdown, Insomnia and Neurasthenia.

"FERROCARNIS"

A pleasantly flavoured solution of iron in organic combination with **BRAND'S Concentrated Raw Meat Juice.**

Ferrocarnis combines the stimulating properties of meat juice with the tonic effect of iron. This product does not cause constipation, and thus affords a means of administering iron to patients who are unable to take ordinary iron preparations.

PREPARED BY

BRAND & CO., LTD., MAYFAIR WORKS,
SOUTH LAMBETH ROAD, S.W.

Do You Sell Sister Laurus Food?

The question is often asked nowadays. The Chemist who does not stock Sister Laurus Food is missing a good line. Sister Laurus Food is achieving great success as a preparation for weakly babes and for invalids and the aged. It makes milk digestible and is invaluable in cases of malnutrition. It is a thoroughly reliable line and one that brings a handsome return. Samples and advertising matter free on application.

SISTER LAURUS INFANT FOOD CO., Ltd., 156 Vincent Street, GLASGOW.

SAPONINE
(SOLUBLE),
MANUFACTURED BY
C. W. FIELD, LTD.,
Cambrian Mills, LIVERPOOL.

Special Terms to Wholesalers and large Consumers.

TELEGRAMS:

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7 to 12, ALDERSGATE ST.
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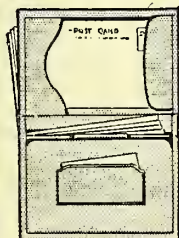
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NUMBER 189

MAY 29, 1915

SPECIAL "KHAKI" NUMBER

Here are lines—good lines—of more than ordinary interest.
Gifts for the soldiers' comfort, special toilet preparations, and
useful requisites will remain popular until the streets
re-echo to the march of our returning heroes.

THE
'AYE-READY'
COMPANION

A letter from the front is the most cherished possession in many a home. The "Aye-Ready" Writing Companion

will give our fighters more facilities for correspondence. It comprises a letter-case in stout waterproof

KHAKI MATERIAL,

with long pocket at back for note paper, inside envelope pocket and stamp or card pocket, and fitted with thin foreign notepaper and envelopes, post cards and indelible pencil.

This article makes an inexpensive but

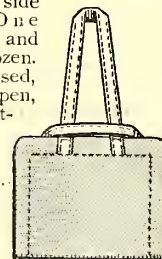
MOST USEFUL GIFT

for soldiers on active service, and a really good display card which is sent free with orders makes certain and ready sales.

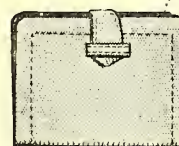
Fitted complete,
16/- dozen.

THE
'SAFEGUARD'
PORTABLE SEATS

The soiled or wet side folds inwards. One quality at 15/- dozen, and a better line at 25/- dozen. Measurements: closed, 4½ in. by 5½ in.; open, 12 in. by 18 in. Mounted on strong display cards. Useful for troops in trench and bivouac.



25/- Dozen



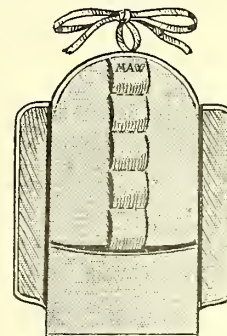
15/- Doz.

WATERPROOF

KHAKI HOLD-ALLS

The soldiers' toothbrush, shaving soap, knife, spoon and fork, may all be carried in this handy hold-all. When opened it measures 17 in. by 13 in. Very strong and waterproof.

In two
qualities,
9/- and 18/-
dozen.



OUR pocket water-filters afford a good safeguard against typhoid, cholera, etc. War Office pattern (B1621/S), 3/6 each. Other patterns: Aluminium, 4/8; Earthenware, 3/6; and Silicated, 2/- and 4/- each.

THE soldiers' aid to marching, "Active Service" Foot Powder, is a topical toilet preparation. Put up in 3d. tins, attractively printed, with show-card, 22/- gross.

ANOTHER "Active Service" production is our Camphor & Boracic Cream. Eminently suitable for applying to the hands and feet. In strong metal screw cap cases, 28/- gross. Saleable throughout the year.

A SIMPLE and necessary item of outfit for every soldier and sailor is our "Model" Outdoor Tinder Lighter. No spirit required. Entirely British made, 10/6 dozen. Protected retail price, 1/3 each.



LITTLE TALES: 5

If our soldiers were followers of Jean de Labadie, the dearth of mirrors would not trouble them. The tenets of the Friesland Labadists forbid the use of looking-glasses as tending to foster vanity. The majority of our men, however, will appreciate our Unbreakable Mirrors. They are made of a thin sheet of plated metal, and supplied in a case. Price 1/4 and 2/3 each. Also a special pattern in stand-up case, 16/- dozen.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.

WAR TEMPERANCE

THERE is no doubt that a great number of people are following the lead of His Majesty and discontinuing the use of alcoholic beverages. What are they to drink in their place?

BY universal agreement **Dry Ginger Ale** is the most satisfactory and most popular non-alcoholic drink.

TELL all your customers that they can now

MAKE THEIR OWN DRY GINGER ALE

at home—for 3 $\frac{3}{4}$ d. per Quart Syphon (as compared with 2d. to 3d. per half-pint ready made)—in a

"PRANA" SPARKLET SYPHON

with the new "D" Refillable Bulbs.

Sparklet Dry Ginger Ale Syrup — Trade Price 13/-, Retail 1/6.

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THE FRENCH NATURAL MINERAL
— WATER. —

VICHY-CÉLESTINS

DISORDERS of the **LIVER, GOUT,**
Diabetes, Rheumatism, Gravel, &c.

VICHY-ETAT PASTILLES.

Two or three Pastilles after each meal facilitate Digestion.

CAUTION.—Each Bottle from the STATE SPRINGS bears a neck label with the words "VICHY-ETAT" and the name of the **SOLE AGENTS:**
INGRAM & ROYLE, Ltd., Bangor Wharf, 45 Belvedere Road, LONDON, S.E.
PROPERTY OF THE FRENCH GOVERNMENT.

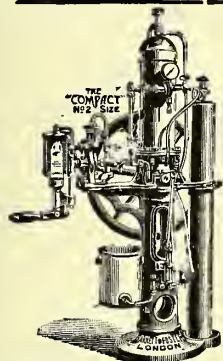
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11
GOLD MEDALS.

*The Best House for all requirements of
the Mineral Water Trade.*

49
HIGHEST AWARDS.



THE "COMPACT" complete Soda-water Machine

For use with Compressed Carbonic Acid Gas is specially designed FOR CHEMISTS, and is provided with one or more filling machines.

Occupies little space. Ready for immediate use. Requires no fixing.

Produces Soda-water, Lemonade, etc., of the highest quality and greatest purity.

PRICES—

No. 1.—Capacity 1,200 dozen per day, including Filling Machines for Bottles and Syphons ... £60

No. 2.—Capacity 600 dozen per day, including Filling Machines for Bottles and Syphons ... £48

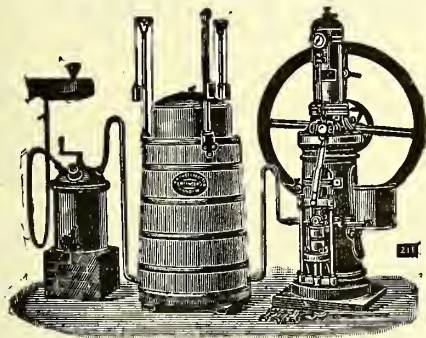
No. 3.—Capacity 300 dozen per day, including Filling Machines for Bottles or Syphons ... £33

We also make a smaller machine at £20.

THE PERFECTION OF SIMPLICITY.

AUTOMATIC CARBONATION.

To those who can spare space in which to generate their own gas, we offer the "Niagara" machines advertised below.



THE "NIAGARA" Soda-water Machine (Continuous Action).

This machine is superseding all other types for the manufacture of FIRST-CLASS Aerated Waters, and is in use in most of the leading manufactories throughout the world.

PRICES, COMPLETE, from £30,
FITTED FOR HAND AND POWER

Particulars of Larger Sizes on application.

NOTE.—These machines are sent out by us complete and ready for work. We include all necessary connecting pipes **without extra charge.** No "extras" to pay for after buying our machines.

STUDY QUALITY—AS CHEMISTS MUST—

By Bottling on our Latest Types of Filling Machines. We Guarantee the

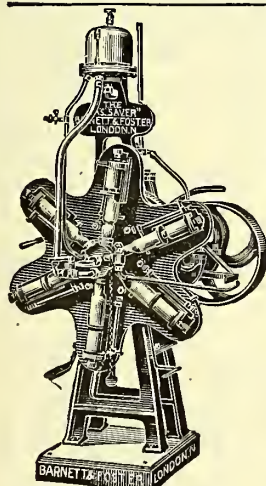
Highest Quality Soda-water at 60-lb. Pressure!

thereby Saving Gas, avoiding Bottle-breakage and improving quality of Products.——The secret:

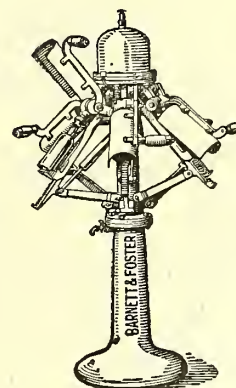
BACK PRESSURE—PROPERLY APPLIED.

Particulars of the "GAS-SAVER," for filling Codd's and Niagara Bottles; The "ROUNABOUT," for filling Corked, Crowned and Screw Bottles sent on application.

SAVE MONEY.



THE "GAS-SAVER,"
Price £60



THE "ROUNABOUT,"
in 6 sizes, prices from £25

CATALOGUE of all our Manufactures, including Syphon-filling Machines, Syphons, all classes of Bottles, Modern Bottle-washing Appliances, Ice and Refrigerating Plant, Essences, Flavours and Drugs, and every requirement of the trade sent FREE on application to—

NIAGARA WORKS, 26^T EAGLE WHARF ROAD, LONDON, N.,
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NEW PRICE LIST and CATALOGUE NOW READY.

Send Post Card for a copy, also for particulars of

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Showcards, Window Bills and Price Tickets supplied with each Order.

ERASMIC - Perfumers - WARRINGTON.

6d.



**Make your old
Hat a new one.**

*In bottles, 6d. each, in
separate neat cartons,
with suitable brush.*

*These Dyes are a distinct
invention, dyeing the straw
without an objectionable
varnished appearance,
and producing the effect
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NO GLOSS.
NO POLISH.

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F.A.T.A.

*Write for terms,
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**WHITAKER & CO., COLOUR WORKS,
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London Depot: 60-62 Clerkenwell Road, E.C.

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We are now offering
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SPONGES

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Best Quality Only.

METHYLATED SPIRIT

Buy from one of the Oldest Houses in the Trade.
Write for Prices.

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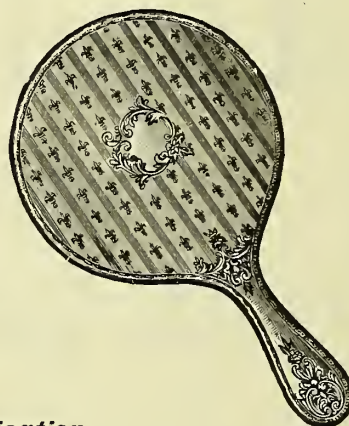
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A few Specialities :—

ARABIC GUMS, CASCARA SAGRADA, ERGOT, CITRIC ACID, COD LIVER OIL, CREAM OF TARTAR, GLYCERIN, HONEYS, MESSINA ESSENCES, OLIVE OIL, PEPPERMINT OIL, QUININE, QUICK-SILVER, RHUBARB, SARSAPARILLA, SHELLAC, TURPENTINE.

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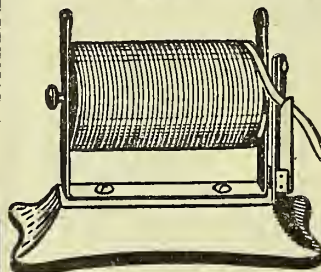
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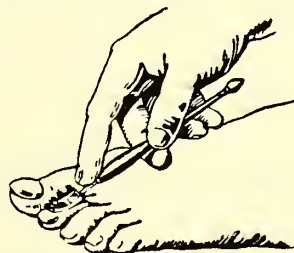
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See pages 5 to 7.

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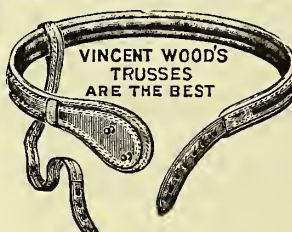
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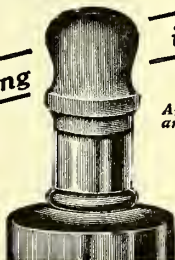
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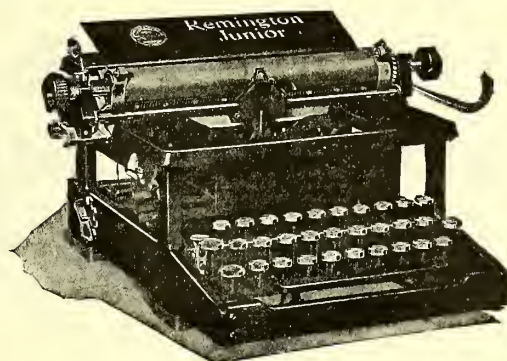


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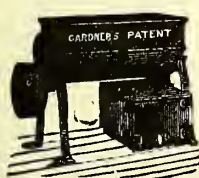
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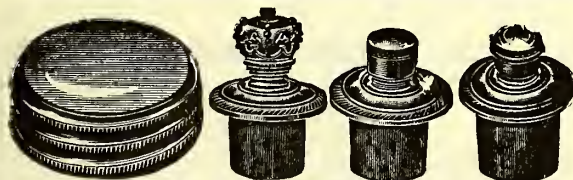
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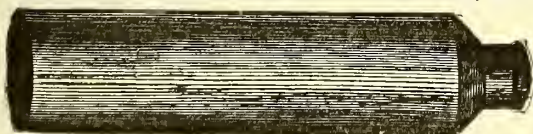
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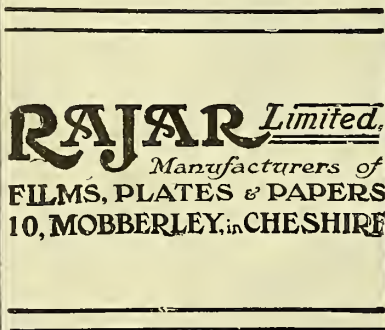
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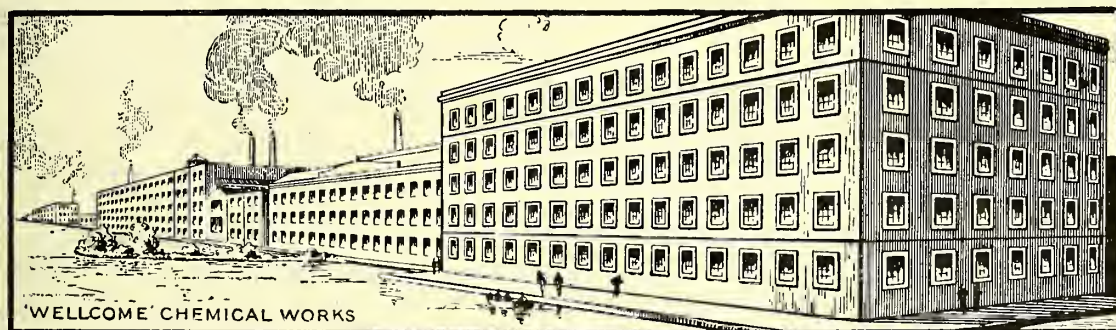
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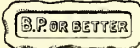
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Summary.

Several interesting dispensing problems are discussed on p. 63.

A note on the procedure that chemists have to take in order to get rectified spirit is printed on p. 51.

Wellcome Chemical Research Laboratory chemists have found colchicine in a liliaceous plant, *Gloriosa superba* (p. 43).

Corner for Students prizes are awarded to Mr. J. T. Bell (Newcastle-on-Tyne) and Mr. A. Martret (North Finchley) (p. 36).

Wholesale druggists have reverted to the old prices of tinctures, etc., although they are not getting rebate of the surtax on spirit (p. 49).

A contributor gives our readers the benefit of his experience in developing photographic negatives for customers. The article begins on p. 53.

The annual meeting of the Chemists' Dental Society, held in London last week, considered a scheme of amalgamation with the National Dental Corporation (p. 44).

Mr. Franklin, of Brighton, urges that chemists' assistants should not be forced into military ranks at present, owing to scarcity in the trade (p. 62). See also notes on p. 63.

Italy's participation in the war affects some articles produced by that country. We deal with the matter generally in an article on p. 50, as well as in the Trade Report beginning on p. 59.

The potential differentiation of spirituous medicines from spirit mixtures, compounds, and preparations which are not medicinal is the subject of our first editorial article. We show that the Finance Bill begins the process, and give a list of official spirituous medicines which should be recognised by the Commissioners of Customs and Excise (p. 48).

European War.

Italy Joined the Allies last Saturday by declaring war against Austria. Mr. Asquith has sent the following telegram to the Italian Prime Minister:

At this great moment I desire to express to your Excellency the happiness felt by H.M. Government and by the people of Great Britain that the long-standing friendship between our two countries has ripened into a more intimate relationship.

The Italian people have always stood for freedom and for the great ideals of humanity, and to-day we rejoice in their decision to participate in the struggle, which the nations upholding these ideals are waging to preserve them from utter destruction.

Now that the will of the Italian people has been so clearly expressed, I know that the valour of the Italian Army and Navy will make the achievement of final victory more speedy and more sure.

We are proud that Italy has joined the Allies, and that the decision has been taken under your Excellency's auspices.

Pharmaceutical Roll of Honour.

Non sibi sed patriæ.—CICERO.

THIRTY-SIXTH LIST.

HARRISON, FRANK (only son of Mr. T. E. Harrison, chemist, late of Sleaford), Lincolnshire Yeomanry.

HARRISON, THOMAS (formerly with Savory & Moore and Perkins & Co., London), Lincolnshire Yeomanry.

HEDLEY, S. M. (lately apprentice with Taylor's Drug Co., Ltd., Northallerton), Leeds Engineers.

MOORE, H. (Midland and Eastern Counties representative of Suttley & Silverlock, Ltd.), 1st City Battalion (Birmingham), 14th Royal Warwickshire Regiment.

MURPHY, M. J. (Vice-President of the Newfoundland Pharmaceutical Society), Sergeant of the Ambulance Division First Contingent Newfoundland Regiment.

SARGEANT, W. B. (former apprentice of Mr. T. D. Robinson, Ph.C., Haverhill, Suffolk), Cyclist Battalion, Norfolk Regiment.

WITT, C. W. (Sheffield representative of Cuxson, Gerrard & Co., Ltd.), Barrack Warden in charge of stores, Wannill Down Camp, Moren Hill, Winchester.

The following gentlemen connected with the retail and wholesale trades in Australia are serving with the Commonwealth Forces:

BENNETT, Melville (lately with Richmond & Co., Toorak, Vic.), A.M.C.

CADDEN, W. R., chemist and druggist, Charters Towers, Queensland, Expeditionary Force.

CALLAGHAN, C. S. (lately analyst with Felton, Grimwade & Co., Melbourne), 5th Expeditionary Force.

CHESHIRE, Fred (lately apprentice with Mr. A. R. Bailey, Malvern, Vic.), 3rd Light Horse Field Ambulance.

COHEN, Lewis G., of Elliot Bros., Ltd., Sydney.

DARLING, R. S. (lately assistant with Mr. Childs, Richmond, Vic.), Light Horse Army Medical Division.

DONALDSON, W. E., chemist and druggist (son of Mr. J. E. Donaldson, Brisbane), A.M.C.

FOSTER, Compounder T. B., Ph.C., Melbourne, Field Veterinary Hospital.

GALLANTY, L. M. (former apprentice of Mr. A. J. Brown, Mackay, Queensland), Expeditionary Force.

GARRICK, K. (son of Mr. J. Garrick, Collingwood, Vic.), A.M.C.

GNANO, R. G. (lately with Mr. E. C. J. Davies, Toorak, Vic.).

JONES, A. Murray (son of Mr. J. A. Jones, Caulfield, Vic.), Australian Aviation Corps.

MEAGHER, Staff-Sergeant Compounder Leslie John (son of Mr. M. Meagher, chemist, Redfern, N.S.W.), A.M.C.

MEATHRELL, Hubert C., Moonta, S.A., A.M.C.

NANCARROW, H., Newcastle, N.S.W.

MR. HERBERT WM. SEWELL (surviving son of Colonel T. Davies Sewell), liveryman of the Spectacle-makers' Company, after four months' duty with the Expeditionary Force in France, has been preferred to a lieutenancy in the Royal Engineers owing to his previous experience for many years of civil engineering.

Notices as to Exports of Chemicals, etc.

HOLLAND.—The "Handelsberichten," in its issue of April 29, gives a complete list of articles the exportation of which is prohibited from Holland. This list is corrected up to April 29, and includes the following products: Potato-flour and potato-starch, acetone, ether, almond-substitute (from pea-nuts), ammonium sulphate, ammonium superphosphate, bones, benzine, biscuits, gunpowder, cacao-beans (crude, also broken and husked, and roasted), cacao-paste and cacao-mass, calcium acetate, Chile saltpetre, surgical

B

instruments (not including rubber articles for sick-nursing, such as ice-bags, air-cushions, etc.), crude phosphates, gas oil, medicaments and wound-dressing material, and raw material for the preparation thereof, potassium salts, calves' stomachs, copper sulphate, rennet preparations, tanning-extracts and all tanning-substances, galls and extracts of galls, hemlock-bark, kino and extracts thereof, quercitron-bark, linseed-cakes and linseed-meal, linseed, lubricants (not including Chinese wood oil, earthenut oil, cottonseed oil, linseed oil, maize oil, olein or oleic acid, palm-kernel oil, soya oil, and tea-seed oil), magnesium salts (not including magnesium oxide), oil seeds, linseed, rapeseed, etc. (except caraway-seed, mustard-seed, and poppy-seed), petroleum, potash, caustic potash and potash lyes, pyrites, nitric acid, coal-tar dyes and all tar-products that can be used for the manufacture of coal-tar dyes, turpentine (also turpentine-substitutes), toluol, vaseline, suet, tallow, and other fats, also compounds of these fats and other edible fats, wool, soft yellow and green soap, starch and starch-preparations, arrowroot, dextrin, tapioca-meal, glucose, salt, sulphuric acid.—With regard to the prohibition of exportation of medicines in general, the Government has decided that the following substances will not be considered as "medicaments" in this respect: Ammonia, acetic acid, barium chloride, bleaching-powder, blood-albumen, cocoa-butter, Chinese wood oil, liquorice, acorn-coffee, gelatin, plaster of Paris, Glauber's salt, Haarlem oil, calamus-root, caraway oil, palm oil, linden-blossom, milk-sugar, musk, clove oil, nutmeg oil, paraffin, peppermint, Portuguese elder-seeds, saccharin, spikenard, star-anise and tea-seed oils, vanillin, and solution of sodium silicate. The prohibition of exportation from Holland is provisionally revoked for theobromine, diuretic, cinchona-bark and preparations thereof, cocaine, coca-leaves, and cubeb.

ITALY.—The Board of Trade are in receipt of telegraphic information from H.M. Ambassador at Rome to the effect that a Royal Decree was published on May 9 prohibiting the exportation from Italy of sulphur, vegetable oils, and pure spirit.—H.M. Ambassador at Rome has also been informed that the Italian Government has decided that applications on behalf of foreign firms for permission to export particular consignments of goods prohibited to be exported from Italy must specify the name of the Italian exporting firm, which firm must, at the same time, present an application for an export licence to the Italian Ministry of Finance.

UNITED KINGDOM.—An Order in Council, published on May 20, prohibits the exportation of crude coal tar to all destinations. The exportation of magnesium chloride, oxides and salts of cobalt, oxalic acid, phosphorus, and manufactures of aluminium is prohibited to all destinations other than British possessions.

British Chemical-trade.

Writing in the "Financial Times," a correspondent says that "for the moment the chemical-industry of the United Kingdom is engaged almost entirely upon War Office contract work; that is to say, the entire output of the plants of these undertakings is being taken by the Government, and on terms which may fairly be described as satisfactory. [This statement is somewhat exaggerated, as plenty of private home and export business is being carried on.—Ed.] This state of affairs will certainly continue as long as the war lasts, while after the conclusion of hostilities, whenever that may be, these same companies should benefit from the absence, temporarily at any rate, of German competition. This point may be emphasised, as there are many who regard an eventual return of German ascendancy in the chemical-industry as inevitable; the opinion is one which may, however, quite possibly be disproved by events, it being recognised by many of the scientific and financial interests connected with the production of chemicals in Great Britain that an opportunity has occurred of permanently throwing off the German yoke, and a desperate effort will, therefore, be required on the part of Teutonic competitors to re-establish themselves in the chemical-trade of Great Britain. Moreover, there is reason to believe that the British Government would, if necessary, assist in opposing any German aggression hereafter."

Belgian Doctors' and Pharmacists' Relief Fund.

A meeting of the Central Committee was held on May 13, when Sir Rickman Godlee (the Chairman) announced that he had received from Dr. Péchère (President of the Aide et Assistance aux Médecins et Pharmaciens Sinistrés) a formal receipt for the money sent by the Fund to Belgium for distribution, and it was agreed to forward the same

amount on future occasions and at intervals as soon as particulars of distribution had been ascertained. The Treasurer (Dr. Des Voeux) reported that he had placed further sums of money on deposit, and noted that the subscription-lists had now begun to get smaller. It was the feeling of the Committee that this might be due to the fact that much of the money collected had not yet been spent, but it was hoped that the urgent need of the cause would not be lost sight of. At the rate of expenditure sanctioned by the Committee, the Fund, at its present figure, will not last very long, and it is particularly desirable that when hostilities cease there should be some money in hand to form a nucleus for an international scheme for reinstating the professions of medicine and pharmacy in Belgium after the war. Gifts of clothes would be welcomed by the Committee. The supply is running short, and assistance in this direction is often very valuable to and highly appreciated by our Belgian colleagues and their families. All parcels of clothes should be addressed to Mrs. Colebrooke, Wesleyan Training College, Horseferry Road, London, S.W.

The Birmingham Committee of Medical Practitioners and Pharmacists held its final meeting on May 11, with Professor Gilbert Barling in the chair, in order to receive reports from Professor R. Saundby and Mr. F. Smith on the work which had been accomplished. The accounts and vouchers had been submitted to Sir Thomas Barclay, who had audited them and given certificates of their accuracy. The total amount collected was 526*l.* 5*s.* 3*d.*, the whole of which has been remitted to Dr. Des Voeux, the Hon. Treasurer of the Fund in London. All expenses have been defrayed locally, and there has been no deduction from the amounts subscribed.

The following is a list of the subscriptions received during the past fortnight: Nottingham and Notts Pharmaceutical Association (per H. P. Middleton), 5*l.* 5*s.*; Hants County Pharmacists' Association (per S. G. Bartlett), 10*s.* 6*d.*; Folkestone and District Chemists' Association (per F. C. Jones), 1*l.* 1*s.*. Collected by the West Bromwich Pharmaceutical Association (per J. Rex Allen): Mr. Griffiths, sen., 1*l.* 1*s.*; Mr. Griffiths, jun., 1*l.* 1*s.*; Mr. Withers, 10*s.* 6*d.*; Mr. Barnes, 5*s.*; Mr. Beattie, 5*s.*; Mr. Bourne, 5*s.*; Mr. Allen, 1*l.* 1*s.*. Collected by Mr. W. Riley, of Derby: Mr. Judge, 5*s.*; Mr. Evans, 5*s.*; Mr. Wright, 5*s.*; collected by N.E. London Pharmaceutical Association (per T. S. Tabor), 1*l.* 15*s.*; J. E. Owen, 5*s.*; collected by Newcastle Pharmacists' Association (per W. Kerse): Wilkinson & Simpson, 5*l.* 5*s.*; Mawson & Procter, 3*l.* 3*s.*; Owen & Son, 1*l.* 1*s.*; J. S. Hill, 1*l.* 1*s.*; T. H. Flemming, 1*l.* 1*s.*; R. Wright, 1*l.* 1*s.*; H. J. Bates, 1*l.* 1*s.*; W. Kerse, 1*l.* 1*s.*; H. S. Williamson, 1*l.* 1*s.*; H. W. Noble, 1*l.* 1*s.*; E. H. S. Baker, 1*l.* 1*s.*; J. Elliott, 1*l.* 1*s.*; W. Clark, 10*s.*; C. J. Russell, 10*s.*; W. Stephenson, 10*s.*; W. Atkins, 10*s.*; T. M. Rutherford, 10*s.*; J. F. Simpson, 10*s.* 6*d.*; C. E. Layne, 10*s.* 6*d.*; M. J. Todd, 10*s.*; J. Cowgill, 10*s.*; F. Beattie, 10*s.* 6*d.*; E. G. Power, 10*s.*; R. McClumpha, 10*s.* 6*d.*; F. R. Parker, 10*s.*; J. Kinnis, 10*s.*; W. Kinnis, 10*s.*; J. Elder, 7*s.* 6*d.*; G. Whitehead, 5*s.*; W. J. Smith, 5*s.*; T. Robson, 5*s.*; A. Turnbull, 5*s.*; Miss Dunlop, 5*s.*; E. H. Turnbull, 5*s.*; R. Cubey, 5*s.*; W. D. Hunter, 5*s.*; Doig, 5*s.*; Poole, 5*s.*; W. Buckley, 5*s.*; R. Ismay, 5*s.*; — Weddell, 2*s.* 6*d.*; — Padley, 2*s.* 6*d.*; J. White, 2*s.* 6*d.*; H. C. Bailes, 2*s.* 6*d.*; A Friend, 3*s.*

Subscriptions may be sent to Mr. Woolcock, 17 Bloomsbury Square, London, W.C.

Personalia.

MR. GEORGE LUNAN, Ph.C., F.C.S., Edinburgh, has received a large number of letters in regard to the death of his elder son, Lieut. George Harold Lunan, M.B., Ch.B., R.A.M.C., attached to the 9th Lancers (C. & D., May 22, p. 72). One of these, from Lieut. Ward, R.A.M.C., states that Lieut. Lunan "was recognised out here as a medical officer of exceptional ability, with a very generous heart, and was the 'bravest of the brave.' He was in the trenches with 'A' Squadron of the 9th Lancers, and he heard there were wounded in 'C' Squadron trenches. To reach the latter trenches he had to go over some open and very dangerous ground. He never hesitated, but, accompanied by his dresser, Corporal Steedman, R.A.M.C., he ventured on this journey. He reached the parapet of 'C' trenches, and there was shot through the heart by a bullet from a German rifle. His death was instantaneous. His whole regiment grieved for the loss of their 'young doctor officer.'"



DR. LUNAN.

Lieut. Lunan was buried in the churchyard of St. Jean by the side of Major Corbett, 18th Hussars. In another letter Lieut. Graham, also an Edinburgh man, mentions that Lieut. Lunan had dressed the wounds of sixty men on the morning of his death.

MR. BRINSON, of Burgoyne, Burbidges & Co., wholesale druggists, London and East Ham, has had to relinquish his military duties for reasons of health, and has taken up his old work again.

SERGEANT REGINALD HEATON, 7th King's Liverpool Regiment, a former assistant to Mr. J. Joye, chemist and druggist, London Street, Southport, has been wounded in the leg in the recent fighting in Flanders. This is the second time Sergeant Heaton has been wounded.

In the official casualty list, issued under date of May 12, of the wounded among the Expeditionary Force, appears the name of Second Lieut. T. E. De Q. Quincey, 6th (attached 2nd) Rifle Brigade. Mr. Quincey is the son of Mr. Richard De Q. Quincey, of R. Quincey & Son, essential-oil merchants, 143 Fenchurch Street, London, E.C.

Miscellaneous.

RESPIRATOR SOLUTION.—Many inquiries have been addressed to us regarding the solution with which the respirators are soaked that are employed by soldiers to counteract the poisonous gases used by the Germans in warfare. The following is one of the solutions employed:

Sodium hyposulphite	...	...	1 lb.
Sodium carbonate	...	...	1 oz.
Glycerin	...	...	1 oz.
Water	...	...	4 pints

Dissolve.

PHTHISICAL SOLDIERS AT THE FRONT.—Dr. Isabella Mears, Woodburn Sanatorium, Edinburgh, writing in the "British Medical Journal" (1915, 1, p. 785), cites five cases of tuberculous soldiers who have had sanatorium treatment, and who are now on service with the Colours. All have enjoyed good health during their periods of service and all have been promoted, which in itself tells of good health. Dr. Mears is not, however, of opinion that any man who had a grave lesion would be accepted for service, having regard to the possibility of spreading infection. She asks, Is it not the case that sanatorium treatment has been instituted partly for the purpose of teaching patients, even if they have a grave lesion, to live without spreading infection? Dr. Mears draws from these examples encouragement to continue the fight for the cure of this scourge of mankind.

Notes from Russia.

It is estimated that Russia formerly imported about 60 per cent. of its chemical and pharmaceutical requirements from Germany, but the Russian Government is now appealing to domestic producers, asking them to combine and consider ways and means of meeting the new situation. A conference was held in Moscow between representatives of manufacturers, technical professors, and State officials, when it was decided that the Russian pharmaceutical industry must emancipate itself from abroad as far as possible, and that it is quite possible to manufacture out of native raw materials many products which have hitherto been obtained from other countries. Among the raw materials said to be lacking are iodine, borax, bromine, and bismuth. It was further resolved to ask the Ministry of Commerce, on the basis of the recent cancellation of Russian patents or trade-marks formerly held by enemy countries, to permit future makers to use the names of the patented preparations for their equivalent products, with an intimation of their Russian origin. It was finally resolved that, on the conclusion of the war, special attention should be given to Customs legislation, and that in particular German products should be subject to maximum rates.

News from Enemy Countries.

DR. JACOB SCHMITZ, an original member of the German Chemical Society, head of the firm Schmitz & Co., synthetic-perfumery manufacturers, Düsseldorf, and commander of the 8th Regiment of German field artillery, has been killed at Wladislawow by a shrapnel shell. He leaves a widow and ten children.

A PUBLIC HEALTH AND WAR HYGIENE EXPOSITION opened in the Parliament Buildings, Buda Pest, on April 11 under the patronage of the Archduchess Augusta. The exposition includes a number of exhibits of pharmaceutical interest, such as a collection of preparations made by Buda Pest pharmaceutical students, specimens from the Pharmaceutical Museum, and drugs in original packages, particularly such as cannot be imported at present on account of the war. The German Navy has sent a ship-dispensary, and field pharmacies are also exhibited.

Corner for Students.

Conducted by Leonard Dobbin, Ph.D.

Communications should be addressed Corner for Students, "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Report on May Analytical Exercise.

THE powder distributed to students on April 27 contained five parts by weight of barium carbonate, four parts of potassium oxalate, and one part of ammonium chromate. The calculated composition of such a mixture is:

Ba	...	...	...	...	34.8
K	...	...	...	...	17.0
NH ₄	...	...	...	...	2.4
CO ₃	...	...	...	...	15.2
C ₂ O ₄	...	...	...	...	19.1
CrO ₄	...	...	...	...	7.6
H ₂ O	...	...	...	...	3.9
					100.0

The sulphuric-acid radical was present, as impurity, in very small proportion.

Samples of the powder were distributed to twenty-eight students, and seventeen reports were submitted for examination. All of our correspondents succeeded in detecting potassium, ammonium, and the chromic-acid radical. One student failed to detect barium, while three failed to detect the carbonic and four the oxalic acid radicals. Only eight students reported the evolution of the small quantity of water liberated when the powder was heated in a dry test-tube.

The examination of this powder was carried out very effectively by a large proportion of our correspondents, and high marks were attained in more instances than usual. It was possible to detect nearly all the main constituents in the course of careful preliminary testing, and this was a valuable aid to subsequent work. The colour of the original powder and the fact that when treated with water a considerable part dissolved, yielding a yellow solution, suggested a soluble chromate. On heating with dilute hydrochloric acid the yellow colour disappeared and a nearly transparent green solution resulted, which further suggested that a chromate was present originally. In this action of hydrochloric acid the reduction of the chromate to a chromic salt was not merely a result of the reducing character of the acid, but was greatly aided by the oxalate present, and in point of fact the oxalate brought about this reduction even when dilute nitric acid, which possesses considerable oxidising power, was used to dissolve the powder. The fact that the treatment with dilute hydrochloric acid yielded a solution which was not perfectly transparent escaped the observation of almost all our correspondents, and only one sought for, and succeeded in detecting, the cause of the slight turbidity which persisted even after prolonged boiling with the acid. The turbidity was really due to a small proportion of barium sulphate present as impurity in the barium carbonate.

A somewhat remarkable failure on the part of a few students occurred in connection with the precipitation of chromic hydroxide in the iron group. The routine operations of the systematic analysis up to the point at which ammonium chloride and excess of ammonia are added as group reagents were certain to have effected the reduction of the chromate to the condition of a chromic salt; nevertheless, one student failed to observe the formation of any precipitate in the iron group, while at least one who obtained a precipitate concluded, after examining it, that it consisted of aluminium hydroxide, although in each case the presence of chromium in the powder, in the form of a chromate, was duly detected and reported. This particular kind of failure seems to indicate insufficient knowledge as to the change which a chromate is certain to undergo in the ordinary course of an analysis, and as to the stage at which and the form in which the chromium originally present as a chromate will make its appearance.

We note the recurrence of the error to which reference has been made repeatedly in this column of reporting a

chloride because silver nitrate yielded a white precipitate which did not dissolve in dilute nitric acid, but dissolved in ammonia. The precipitate in question really consisted of silver oxalate, which only dissolves after a somewhat greater quantity of moderately diluted nitric acid has been added than is required to dissolve most other silver precipitates.

Notes upon a few other mistakes and misconceptions are contained in replies to individual students.

PRIZES.

The First Prize for the best analysis has been awarded to JOHN T. BELL, 12 Nichol Street, Benwell, Newcastle-on-Tyne.

The Second Prize has been awarded to

A. MARTRET, 30 Percy Road, North Finchley, London, N.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

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TO CORRESPONDENTS.

A. MARTRET.—Separate examination of the portions of the powder extracted by water and by hydrochloric acid respectively did not materially simplify the analysis, and rendered some additional work necessary.

B. J. II.—It would have been advisable to ascertain that the precipitate which was regarded as calcium oxalate was not soluble in acetic acid, or that it decolorised potassium permanganate in presence of sulphuric acid.

R. S. ROWBOTTOM.—In describing the examination of the iron-group precipitate, you state that the addition to it of potassium hydroxide in excess yielded a precipitate; but this reagent would dissolve the original precipitate, and re-precipitation would not take place without boiling the solution. Perhaps you did boil it, but, if so, you should have stated this explicitly. It is a common misconception that aluminium hydroxide is the only hydroxide of the iron group which is dissolved by excess of cold solution of potassium hydroxide.

FRAISES.—The pungent white fumes you observed on treating the powder with concentrated sulphuric acid were no doubt due chiefly to the volatilisation of some of the acid. The colour of the powder and of the aqueous extract from it, as well as the change of colour of the latter when acidified with hydrochloric acid, suggested a chromate rather than a bichromate. We did not detect any trace of a chloride.

WEDGEWOOD.—We do not understand how you failed to observe the evolution of carbon dioxide on treating the powder with dilute sulphuric acid, whereas you observed it when using hydrochloric acid.

ORCADIA.—Some attempt should have been made to prove whether or not chromium was originally present as a metallic radical as well as forming part of the acid radical of a chromate.

SATELLITE.—The precipitate which you took for silver chloride consisted of silver oxalate, the latter being somewhat slowly and incompletely dissolved by nitric acid if too dilute. Read also the first sentence of the reply to "Fraises."

CARPE DIEM.—Note that chromium as part of an acid radical does not assume the character of a base on the addition of "an acid"—i.e., of any acid. Unless a reducing agent is present, or the acid used is capable of causing reducing effects—e.g., sulphurous acid or hot concentrated hydrochloric acid—chromic salt is not produced from a chromate.

USQUE CONABOR.—The evolution of carbon dioxide when the powder was heated with a dilute acid should not have escaped your notice, seeing that the powder yielded over 10 per cent. of its weight of the gas.

AULD REEKIE.—The chlorine you obtained was most likely derived from chloride present as impurity in the man-

ganese peroxide you employed. A blank experiment should always be made to prove the absence of chloride from the peroxide used.

CANTUM.—The iron-group precipitate which you took for aluminium hydroxide was really chromic hydroxide. We did not detect the presence of sensible traces of strontium. As regards your finding potassium in last month's powder for analysis, we tried again, carefully and using considerable quantities, but were not able to confirm its presence. At the same time, we noted the separation of a considerable quantity of crystalline matter when applying Carnot's test, and the deposit gradually acquired a pale-brown colour. The precipitate consisted mainly of sodium sulphate, insoluble in aqueous alcohol, and the colour it assumed was due to traces of bismuth sulphide formed by the slow interaction of bismuth nitrate with sodium thio-sulphate in a faintly acid mixture.

VAY.—It was hardly correct to describe the powder either as soluble in hot water or insoluble in cold water: it was partially, but only partially, soluble in water whether hot or cold.

ONYX.—You should state a definite conclusion regarding each suspected constituent, either that it is present or that it is absent. We cannot give much credit for suggestions, even if correct, when these are qualified by query marks.

RESURGAM.—We cannot account for your conclusion that a ferricyanide was present, as the test with ferrous sulphate which you describe did not furnish in our hands the results you report.

Minor Botany.

Now that the summer is fairly upon us we resume the series of articles for students which the war has suspended. This is the twenty-fifth article of the series. Others will appear as space permits.

THE genus *Daphne* is the sole British representative of the Natural Order *Thymelacae*. Like most members in this order, *Daphne Mezereum*, L., is shrubby, with entire leaves and a much-hollowed receptacle (calyx-tube)



DAPHNE MEZEREUM.

in the flower. *Mezereum*, which is from one to three feet high, grows wild in some of the southern counties of England, and its few erect branches, crowded with sweet-scented purplish-red flowers, are a conspicuous feature in many gardens in February and March. The flowers

bloom in clusters of two or three along the previous year's shoots before the terminal tufts of lanceolate deciduous leaves are fully out. The calyx-tube is $\frac{1}{2}$ in. long, with four spreading lobes. The stamens, eight in number, are inserted in the tube at two different levels. The ovary is free in the tube (superior), and has a very short style and a capitate stigma. It contains a single pendulous ovule, and is succeeded by a red single-stoned berry. The thin bark, which is used in medicine, has a silky inner surface, and readily splits longitudinally, but is too tough to be broken across. This is due to the unusually long interwoven fibrous cells (sclerenchyma) of the inner bark (bast). These fibres may be 3 mm. long—i.e., several hundred times as long as they are wide.

English and Welsh News.

Subscribers are invited to send to the Editor newspapers containing matters of trade interest. The items should be indicated.

Contracts for Drugs, etc.

The following particulars regarding contracts for articles in which chemists are interested have been received during the week:

Orrell District Council.—R. S. Clare & Son, fluid disinfectant; Executors of W. Sharratt, disinfectant powder; W. & F. Walker, carbolic acid.

Westminster City Council has been recommended to accept the tender of Edward Cook & Co., Ltd., for a three months' supply of toilet soap and soft soap.

Channel Islands.

As a result of a public meeting held recently at St. Peter-Port, Guernsey, a co-operative society, to be known as the Guernsey Industrial Co-operative Society, Ltd., is now in course of formation.

Mr. Ernest Ahier, chemist and druggist, Jersey, having presented the certificate of the Pharmaceutical Society of Great Britain, has been granted permission by the Court of Alderney to practise as a pharmacist in that island.

The Pharmacy of the "Croix de Lorraine" (formerly known as the Geneva Cross Pharmacy) at Snow Hill, St. Helier, Jersey, is closed from May 26 till the end of hostilities. The proprietor, Dr. Cibot, may be addressed at the Convalescents' Hospital, Brize, Corrèze, France.

"Thalassol," the disinfectant manufactured for the States of Guernsey, is being advertised at present as a specific against flies on cattle. It is recommended that the interiors of all cattle-sheds should be syringed with water to which 10 per cent. of "Thalassol" is added, and that the animals should be sponged with a 2-per cent. solution of the disinfectant.

Sheffield.

Mr. F. Goddard Roebuck has a very attractive window-display of toilet articles—Euthymol tooth-paste, flanked by his own preparations—at his Millhouses pharmacy. The display attracted much attention on the part of holiday-makers.

Messrs. Watsons (Mr. W. E. Heaton, Ph.C.), 84 High Street, have issued by post to householders an advertising booklet by Kodak, Ltd., entitled "Spring-time." This advertising campaign is supported by a "shopping-week" window-display at their pharmacy.

On account of the machinery of the large works requiring overhauling, there has been a more general holiday in Sheffield during Whitsuntide than at any other time since the commencement of the war. This has had an effect on business generally, and most chemists have taken the opportunity of enjoying a brief holiday.

Miscellaneous.

BIRMINGHAM GROCERS are closing their shops from 1.15 to 2.15 p.m. daily, owing to shortage of helpers. Will the pharmacists follow suit?

LORD LISTER MEMORIAL.—The London County Council has decided to commemorate the residence of Lord Lister in London by placing a memorial tablet on the house 12 Park Crescent, Marylebone Road.

PETTY THEFT.—At Crewkerne, on May 15, a lad named William Lacombe was placed under probation for six months for stealing a bottle of cough-cushions from the shop of Mr. T. H. Dyson, Ph.C., 1 East Street, Crewkerne, on April 24.

THE WORCESTER ROYAL GRAMMAR SCHOOL, which has been in existence between 600 and 700 years at least, and was a flourishing institution in 1291, has been presented with a magnificent hall by Mr. C. W. Dyson Perrins (of Worcester sauce fame), in memory of his father.

POISONING CASES.—Five of the seven deaths from poisoning reported during the week were suicidal cases. The poisons employed were potassium cyanide, rat poison, veronal, weed-killer, and a corrosive acid (kind not stated). Ammonia and an unknown poison, taken by misadventure, caused the deaths of two persons.

RESTITUTION ORDERED.—At Lambeth Police Court, on May 25, Walter J. Norman (29), packer, was charged with stealing 14l. 17s. belonging to Nestlé's Anglo-Swiss Condensed Milk Co., Ltd. Prisoner bore a good character and was liberated upon probation, one of the conditions being that he will repay the company 10l. within six months.

FACTORY EXPLOSION.—An explosion, followed by fire, occurred in the store-room buildings of a large chemical-factory at Pouders End, London, on May 20. One workman was decapitated, and one of two men who were injured is not expected to live. The buildings were burnt out, but the rest of the factory buildings, in which about 500 persons were employed, escaped damage.

At the Mansion House Police Court, London, on May 26, Wm. Jno. Godfrey Robilliard (52), Chesterfield Grove, East Dulwich, was sentenced to ten months' imprisonment for obtaining money by false pretences. Under the name of Brooks & Co., 38 King William Street, he advertised a business (Brooks' Corn-cure) for sale, and obtained money by way of deposit for the purchase of the concern.

FIREMEN OVERCOME BY FUMES.—Two firemen were overcome by fumes at a fire at premises occupied by the Beautoid Co., beauty specialists, 101 Pimlico Road, Chelsea, London, S.W. The outbreak occurred in the basement, where quantities of chemicals and oils were stored, and the dense smoke and fumes necessitated the use of smoke helmets. The two firemen recovered at St. George's Hospital.

JUVENILE EMPLOYMENT.—At a meeting of the Nottingham Juvenile Advisory Committee on May 18 it was stated that a number of situations are offered by wholesale and retail chemists to boys and girls who have passed the Senior Oxford or Cambridge local examinations. The Committee considered that the attention of high and secondary schools and of parents in general should be directed to these vacancies.

SALE OF FOOD AND DRUGS ACTS.—At a meeting of the Camberwell Borough Council on May 21, Councillor W. Shrimpton drew attention to the quarterly return of the public analyst, pointing out that only 176 samples of foods and drugs were submitted for analysis. The Council pays the analyst an inclusive fee of 400l. a year for the analysis of 800 samples, and he thought the full number of samples should be submitted. Councillor W. F. S. Vicary, Chairman of the Public Health Committee, explained that the Council has a shortage of officials owing to the war, but the Committee will look into the matter of samples.

CHEMISTS DEFRAUDED.—The Farnham Bench, on May 19, committed for trial a man named Frederick Raymond Rake, who was attired in the uniform of an officer of the Army Service Corps, on a charge of stealing 16s. 4d. and a bottle of Scott's Emulsion (value 3s. 8d.) from the Timothy White Co., Ltd., 24 The Borough, Farnham. Mr. E. W. Male, Ph.C., the manager of the branch, stated that on May 15 the accused, giving the name of Lieut. Johnson, asked for the emulsion, together with change for a sovereign, to be sent to the Carlton Hotel. This was done and the company's messenger was given an envelope which contained only a halfpenny instead of a sovereign.

Irish News.

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Brevities.

Mr. D. J. O'Mahony, Cork, has been appointed analyst to the Kenmare Board of Guardians.

Alderman William McCarthy, Ph.C., 7 Vernon Parade, Clontarf, Dublin has been appointed a Justice of the Peace.

Mr. Walter Thorpe, Poolbeg Street, Dublin, has been appointed analyst to the New Ross Guardians at 24*l.* per annum.

On the occasion of the visit of the Lord-Lieutenant of Ireland to Antrim on May 22, Mr. F. T. Smith, R.D., Chairman of the Urban Council, gave an address of welcome.

Mr. Frank E. Campion, formerly of Sullivan's Medical Hall, Waterford, and lately on the staff of W. F. Wells & Son, Dublin, has been appointed dispenser to the Royal Hibernian Military Schools, Chapelizod.

At the meeting of the Bawnboy Board of Guardians last week, a letter was received from Boileau & Boyd, Ltd., drug-contractors, asking for payment of 3*l.* 6*s.* 1*d.* for loss arising out of the contract. The application was refused.

The Ulster Drug Trade Association has sent a donation of five guineas to the Belgian Doctors' and Pharmacists' Relief Fund, and a like amount to the Belfast fund for wounded soldiers and sailors promoted by the Rotary Club.

At a recent meeting of the Londonderry County Council, a County Recruiting Organisation Committee was formed, and Mr. J. E. O'Neill, registered druggist, Maghera, was elected Chairman. Mr. O'Neill has been for many years the Chairman of the Derry County Council.

Mr. Wilfred Wells, son of Mr. W. F. Wells, M.C.P.S.I., has been awarded the silver medal for bass solo at the Feis Ceoil, the Irish Musical Congress. He all but secured the Denis O'Sullivan Diploma in Music, and he was one of four who won 15*l.* for part-singing against all Ireland.

A verdict of death from misadventure from taking an overdose of hydrocyanic acid was returned by the jury at an inquest held on May 21 by Mr. Rofferty, Coroner for South County Dublin, at St. Michael's Hospital, Kingstown, on the body of George Ernest Strongitharm, who had been employed in the branch establishment of Hayes, Conyngham & Robinson, Ltd., Upper George's Street, Kingstown. Deceased had been ill for a fortnight before his death.

Dental Society of Ireland.

Mr. J. D. Carse, 235 Woodstock Road, Belfast, Hon. Secretary of the Dental Society of Ireland, sends us a copy of the new membership certificate which has been issued by the Society. This is a neat document, printed with rubrics and red seal. Underneath the title are quartered the arms of Ulster, Munster, Leinster, and Connaught. The certificate remains the property of the Society, and has to be returned when the holder ceases to be a member.

Scottish News.

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Brevities.

Several Scottish wholesale houses are now printing both imperial and metric system doses on drug-labels.

Mr. William C. Blake, chemist and druggist, Strathavon, has removed to new premises at 15 Green Street.

Contrary to general expectations the demand for photographic goods continues as in former years. There is a reaction in favour of roll-film cameras, due to two causes—portability and the increased cost of plates.

A fresh industry is proposed for Scotland—viz., more extensive cultivation of chamomiles. In a small degree this has been done in past years (Queen Victoria's mother got her annual supplies from Davidson & Kay, Aberdeen), and the plant has thrived well, yielding a good crop of flowers rich in essential oil. The north-east seems well adapted for such work; aconite and digitalis also grow well in Scotland.

Aberdeen and the North.

Mr. John Banks, chemist and druggist, 26 Bridge Street, Wick, is removing to larger premises at No. 29 in the same street.

Great perturbation has been caused in commercial circles by the prohibition order regarding commercial travellers crossing to the Orkney Islands. So far, negotiations for a modification of the order have met with little encouragement.

Business in Aberdeen and the North generally has been quieter during the past few weeks, but with the advent of warmer weather it is hoped that the usual toilet and other holiday requisites will be in demand. Insurance work has also shown a falling-off, due possibly to the fact that many doctors are on active service.

Edinburgh.

Mr. W. S. Glass, Ph.C., has removed from 193 to 219 Morningside Road.

Several employees of local drug-houses have figured as wounded or missing in recent casualty-lists.

On Monday last, while the victims of the railway accident at Greta were being buried, all business premises were closed from 4 to 6 p.m. In most cases wholesale houses did not reopen till the next day.

The University Court, on May 17, appointed Dr. J. F. Tocher, F.I.C., F.C.S., Aberdeen, as one of the additional examiners in connection with the theses submitted by candidates for the degree of D.Sc. He is the first pharmacist to hold the position.

Dalkeith Town Council has resolved to supply disinfectants free of charge in order to encourage the inhabitants to assist in a crusade against flies. The local authorities recommend the use of saucers containing one teaspoonful of formalin to half a pint of water or milk, with a piece of sugar and small pieces of bread for the flies to alight on.

There will be no Pharmacy Athletic Club sports next month; indeed, sport of all kinds has been at a discount with members of the craft for a long time. Chemists, including those beyond military age, are disinclined to indulge in golf or bowling; and to suggest that an occasional "unofficial" game be reported is to invite a very cold douche.

Fife.

Following upon the recent *C. & D.* note on the use of borax as a preventive and destroyer of larvæ of the house-fly, a fresh demand has been experienced for that chemical.

Notwithstanding the setting-up of the "Bureau" for pricing Insurance accounts, county chemists and druggists are continuing to price "B" forms only, so that a record and check may be kept on the new agency. The "A" forms are being forwarded as directed.

French News.

(From the "C. & D." Paris Correspondent.)

AN ADVERTISEMENT UP TO DATE.—The following has appeared in the "communicated" column of the "Journal":

According to the latest researches of an analyst (pharmacist-chemist) of the city of Paris, "La Bombe" is the only anti-asphyxiant which efficaciously stamps out all cases of commencement of asphyxiation by bromine gas. This marvellous product is sent free by registered letter in return for P.O. 3 francs 50 addressed to Tourtier, 47 rue Desrenaudes.

OFFICE OF CHEMICAL PRODUCTS.—In a recent debate in the French Chamber of Deputies, M. Thomson, Minister of Commerce, alluded to the Office des Produits Chimiques and Pharmaceutiques at the Paris School of Pharmacy, but now removed from its modest ground-floor premises to a more spacious first-floor. The Minister said the Office, under Professor Béhal's direction, has already rendered great services, not only "revictualling" France in the pharmaceutical sense, but giving theoretical and practical assurance to the establishment in France of new chemical and pharmaceutical industries. It is now concerning itself with the re-establishment of the dye-industry in France.

FRENCH INLAND SPAS AND THE WAR.—The suitability of inland watering-places as convalescent homes for sick and wounded soldiers of certain categories has not escaped the attention of the French War Office, and a surgeon-major has been delegated by the Military Sanitary Service to consult with the Secretary of the Institute of Hydrology with a view to carrying this idea into effect. Many hotels at the principal French spas were requisitioned at the commencement of the war as hospitals. Now that the season has arrived for "taking the waters" it is suggested that some effort might be made to secure the custom of the 300,000 Russians who have hitherto annually gone to German spas.

"MENTIONED IN DESPATCHES."—To have a relation "mentioned in Army Orders" is the most fashionable thing in Paris just now. They are often tardily published. The following, which appeared a few weeks ago, dates, it will be noticed, from the time of the great battles of the Marne. It is regrettable that the scene of Merlin's bravery is not stated:

"Merlin, auxiliary pharmacist attached to the artillery of a Colonial division, has never ceased to show proofs of devotion to duty and contempt of danger. Sent to pick up wounded on September 5, 1914, he entered a town, in spite of the fact that the Germans had already commenced to occupy the place. He fulfilled his duty, bringing back his wounded under the fire of the enemy."

HOSPITAL-GAUZE CONTRACTS.—The British Chamber of Commerce in Paris points out that considerable inconvenience has been caused to British firms who had contracted for the supply of hospital gauze during the period of duty-free entry into France, and who had not effected delivery when the duty was re-imposed. The Chamber, therefore, desires to warn British shippers that it is unwise to make contracts for delivery upon the basis of exemption from duty, as, in many cases, such exemption is likely to be merely temporary. It is suggested that a clause should be inserted in contracts stating that the price quoted is subject to the continuance of the existing duty-free entry or of the existing rate of duty, as the case may be, and that any subsequent change in the tariff will involve a corresponding increase of price.

PHARMACY-SURGERY VANS.—Senator Herriot, Mayor of Lyons, makes an appeal to the public in general, and to French mayors in particular, in favour of the new hospital-trains, or rather pharmacy-surgery vans. At the beginning of the war, he states, the number of these was quite insufficient. This was gradually remedied and various ingenious devices adopted. Major Carcenat, acting as commissary of a French railway station, struck by this defect, studied the possibility of utilising the ordinary 30-ft. luggage-van for this purpose. Each of these newly-fitted vehicles included three rooms; the first, called the "Tisanerie," is fitted with a boiler capable of giving nearly 40 gals. of boiling water per hour. Hot herb teas can thus be served and aseptic bandages prepared at any hour of the day or night. The second is the operating-room, with a simple table, etc., but all hygienically fitted up. The third is a pharmacy which contains the most "indispensable drugs, morphine and caffeine, ampoules of cocaine and ether, antitetanic and antidiphtheric serums." Sixty of these vehicles are now in use. The transformation of each luggage-van costs 44*l*. M. Herriot appeals to the towns of France to raise subscriptions to enable the number to be increased. Paris and Lyons have already presented restaurant-cars to the Army; these hospital-cars are not less indispensable.

ANGLO-AMERICAN PHARMACY IN PARIS.—Since the war suspended all tourist traffic, and consequently partially emptied the best and most central hotels of Paris, the Anglo-American pharmacies of the city, principally situated in the hotel district and catering largely for the hotel trade, have naturally been seriously affected. It is due to them to remark that not one closed its doors. Independent of the traditions of Anglican pharmacy in Paris—did not the chemists round the Place Vendôme district remain open even while fighting was going on in the streets in 1871?—there was Red Cross work to be done. The style of "keeping open shop" is possibly more honourable than lucrative, but "Noblesse oblige," and the

British pharmacies have a reputation to sustain. Whether the proprietors were mostly actually engaged in business or doing Red Cross work outside is a fact we leave for the future historian to ascertain; those who do most unpaid work are sometimes the least loquacious on the subject. All that need be said is that they were all "on the spot." When a German Taube flew over Paris months ago one of the partners of a well-known British pharmacy was close enough at hand to pick up a piece of one of the bombs ere it was yet cold. Another, whose pharmacy is in the Rue Scribe, but who lives in the suburbs, had a capital view of the "Zeppelin" during a more recent air raid. This was Mr. Green, who, by his geniality and unfailing kindness, not to say generosity, to Anglo-Americans in Paris, has gained for himself the honorary title of doctor. Of Mr. John Jarvis, of Swann's, we have already spoken, and Dr. Douglas Hogg's services are too well known to be detailed here; while Mr. H. C. Chown, the senior partner of Roberts & Co., has done much active and intelligent service in Red Cross work, aided by his associate, Mr. Arthur Jewell. Other less-known British pharmacists have been actively engaged, and still are, in useful and honorary work which deserves recognition and record.

India and the East.

(From the "C. & D." Correspondents.)

THE TRAVANCORE MISSION of the London Missionary Society treated 115,000 patients last year, the drug-bill amounting to Rs. 11,000. The rise in the price of drugs presents a serious difficulty to the Mission.

PERSONAL.—Mr. C. E. Pinckney, pharmacist, manager of the drug department, Army and Navy Co-operative Society, Bombay, has sailed by the s.s. *Persia* to London on six months' leave of absence. Mr. Macintosh Stewart is taking charge.

INDUSTRIAL ALCOHOL.—The Committee of the Bombay Chamber of Commerce have addressed a letter to the Department of Commerce and Industry of the Indian Government, pointing out the importance of alcohol for industrial purposes and asking that it may be declared duty free in certain instances. The Committee give a list of principal chemicals and industries in which alcohol is largely used.

SUNDAY CLOSING.—The Parsee chemists and druggists of Bombay called a meeting on April 21 in Abdul Rehman Street to consider the question of closing their business every Sunday at 2 P.M. from May. As a result more than forty chemists and others in various parts of Bombay signed an agreement to that effect. It includes the names of some Hindu and Mahomedan firms, who willingly joined the movement.

THE LADY SMUGGLER.—Miss Maisie Scott, who was fined Rs. 1,000 at Colombo for smuggling cocaine and imprisoned on its non-payment, has been released, her friends in England having paid the fine through the Rev. E. B. Woods, Hon. Secretary of the Colombo Friend in Need Society. It is believed that the young woman was largely a victim of a conspiracy, and, although she was not wholly innocent, she had no idea of the grave nature of the offence she was committing. Miss Scott has left for London.

A WAR EXHIBITION, organised on behalf of the Belgian Red Cross Anglo-Belgian Committee is to be held at the Prince's Skating Club, Knightsbridge, London, S.W., from June to October. The profits of the undertaking will be devoted to the funds of the Belgian Red Cross. The office of the War Exhibition is at the London Chamber of Commerce, 97 Cannon Street, London, E.C.

COMPETITIVE PHARMACY.—The Pharmacie Principale at Geneva, which was founded on the principle of cut prices, in one of its advertisements to the public enumerated—after a style familiar to British chemists—the prices charged at that establishment and those of other pharmacies. On the ground that the prices indicated were incorrect seventeen chemists of Geneva claimed damages in the courts, one of them, Mr. Ackermann, claiming 5,000*f*. Judgment has been delivered which substantiated the claims of the chemists and condemned the defendants to pay to each of the seventeen chemists 50*f*. damages and costs. Names of chemists were not mentioned in the advertisements, but the Court held that prices charged "elsewhere" could only mean the other pharmacists of the town. It was found also that the claims of the defendants were untrue regarding the number of qualified chemists in their employ.

Netherlands Notes.

(From the "C. & D." Correspondent.)

Medicines for the Colonies.—The Dutch steamship companies announce that, as the result of conferences between the Governments of the Allies and the Netherlands Oversea Trust, the following articles may be shipped from Dutch harbours for *bona-fide* consumption in the Dutch colonies: Mineral waters, medicines and pharmaceutical preparations of which the required quantities can only be obtained from Germany and Austria-Hungary.

Reprint of the Dutch Pharmacopœia.—A reprint of the fourth edition of the Dutch Pharmacopœia has just appeared. It contains the substances and preparations mentioned in the fourth edition of 1906 and in the supplements of 1910 and 1914. There is a preface of 32 pages, 594 pages of text, and an index of 68 pages, compared with 22, 558, and 65 respectively in the 1906 edition. The alterations resulting from the work of the Permanent Pharmacopœia Committee from 1906 to 1914 have also been included, so that the reprint does not include anything new, but unites in one volume the material of the various publications of the Pharmacopœia Committee.

Opium Regulations in Surinam.—The Governor of Surinam has presented a Bill embodying the amendments in the Opium Regulation of 1900, necessitated by the Opium Convention. According to a regulation of 1908, from March 1, 1913, opium will be admitted into Surinam only for medicinal purposes. This regulation, and the control of importation, are already sufficiently in accordance with the regulations of the Convention; only the definition of opium must be altered, and, according to the Bill, opium includes (a) crude opium; (b) opium preparations (including the residues of smoked opium; and (c) medicinal opium. The Regulation also applies to cannabis indica, bhang, charas, cannabis indica substitutes, and preparations of these: morphine, cocaine, heroin, and their salts, fall in the same category as medicinal opium.

Cultivation of Medicinal Drugs in Holland.—Serious efforts are being made to promote the cultivation of medicinal plants in Holland. An Association has been founded, upon the initiative of a Rotterdam physician, Dr. A. Sikkel, under the name of "Nederlandsche Vereeniging voor Geneeskruidsinnen," the object of which is to arouse interest in this matter. The Secretary of this Society, Dr. D. H. Wester, a Hague pharmacist, has published in the "Pharmaceutisch Weekblad" (No. 14) a lengthy article, in which he demonstrates the desirability of pharmacists taking an active part in drug-cultivation. The author recalls the brilliant results that have attended the cultivation of some tropical medicinal plants in the Dutch East Indies—*i.e.*, cinchona and coca. In Holland, however, very little has been done in this direction. The methods employed in Belgium and Austria afford guidance for the experiments in Holland. In Belgium much has been accomplished by private initiative; in Austria the Government undertook the practical and scientific preparatory work, which has led to an extraordinarily extensive cultivation of medicinal plants. Dr. Wester is of opinion that the latter method will lead to the best results in Holland, and he thinks the Department for Agriculture is quite convinced of the importance of the matter, and will not be disinclined to support the movement by arranging trial gardens and experimental stations. The "Vereeniging voor Geneeskruidsinnen" has begun its practical experiments with the cultivation of digitalis, belladonna, hyoscyamus, and stramonium, and Dr. Wester suggests that groups of pharmacists in different parts of the country should jointly arrange experimental gardens in the same way as the Amsterdam pharmacists have already done for digitalis. The allegations that cultivated plants are inferior to wild plants, it is stated, appear to be inaccurate, and the Dutch Pharmacopœia has given a lead in the use of cultivated plants by stipulating that *Folia Digitalis*, *Belladonna*, *Hyoscyami*, and *Stramoni* must be gathered from plants cultivated in Holland. The author enumerates the conditions on which successful cultivation depends, for the observation and control of which the pharmacist appears to him to be the most appropriate person. He recalls the results that have been obtained by a careful choice of soil, manure, etc., in the cultivation of oats, which has also proved very successful in cinchona-cultivation. The article concludes with some particulars regarding the conditions under which digitalis, belladonna, hyoscyamus, and stramonium should be cultivated.

One ounce of malt extract to an eight-ounce nux-vomica mixture makes a very palatable combination, states the "Medical Press."

Legal Reports.

Trade Law.

Boric Acid in Sausages.—At Hamilton, on May 25, Henry McLaren, Glasgow, was fined 2l., under the Sale of Food and Drugs Acts, for having, on April 12, delivered a luncheon sausage containing 37 gr. of boric acid per lb. Prosecutor stated that the Local Government Board allowed only 16 gr. per lb. as a preservative. [There is no enforceable provision to this effect.—EDITOR C. & D.]—At the Westminster Police Court on May 26, George Alfred Ford was charged, under Section 6 of the 1875 Act, for selling breakfast sausage containing the equivalent of between 21 and 22 grains of boric acid to the pound. The Magistrate (Mr. Biron) was inclined to think there was an offence, and considered that payment of 12s. 6d. costs would meet it.

Rex v. Hannah.—Justices Mason and Bristow, sitting in the Provincial Division of the Supreme Court of the Transvaal, heard on April 20 an appeal by Mr. Thomas Hannah from his conviction by Mr. Thomas Jooste, Assistant Resident Magistrate at Amersfoort, for using the following description, contrary to Section 39 of the Medical, Dental, and Pharmacy Ordinance, 1904 (see C. & D. April 24, p. 102):

*Thomas Hannah, M.P.S.
Consulting Analytical, Manufacturing,
Pharmaceutical, Homœopathic, Veterinary,
Photographic Chemist and Apothecary.*

Mr. Hannah appeared in person, and contended that the section should not be split into two parts, as it had been in order to prosecute him, and he read various documents to the Judges in order to show the confusion which existed in the minds of the Courts on the points which he advanced. The Court dismissed the appeal. In the course of his judgment Mr. Justice Mason stated that the section undoubtedly consists of two parts. The first portion of it deals with those who assume a title which may lead persons to infer that they are registered under the Ordinance, and the second portion of it with those who practise or do things which belong to one of the callings. The appellant had also contended that the word "falsely" means in the section "fraudulently"—intended to defraud people. His Lordship did not agree, remarking: "There can be no question that the appellant knows he is not registered. There can be no question that, speaking generally, the Courts have decided to act on that construction of the Act. There can be no question that the appellant has wilfully used the name of chemist, druggist, and apothecary. That means he has done it intentionally and purposely. The question is whether it is falsely in such a way to imply that he is registered under the Act. What he has done is to advertise himself as a consulting, pharmaceutical, and homœopathic chemist and apothecary of Amersfoort, Transvaal. He has also described himself in the same terms, chemist and druggist of Amersfoort, Transvaal, and then he has a showcase exhibited at a store, of various remedies prepared by Thomas Hannah, M.P.S. I do not know whether that means Member of the Pharmaceutical Society; I suppose it does. Now, it seems to me that where a man advertises himself as a chemist, druggist, and apothecary, that necessarily implies that he is registered under the Act. The accused takes this view: 'I do not say I am registered, and I am not responsible for people's ideas'; but it is, to my mind, quite clear that anybody who saw that advertisement, unless they knew of the position of the accused, would come to the conclusion that this was an ordinary chemist and druggist, registered under the Act, and entitled to practise as such." Mr. Justice Bristow agreed, saying that the advertisements issued by Mr. Hannah held out to persons who read them that he is a chemist and druggist within the meaning of the Ordinance, adding that Mr. Hannah may be entitled to a certain amount of sympathy, but in the Province of the Transvaal his acts are illegal. Mr. Hannah asked for leave to appeal, and Mr. Justice Mason told him that he would have to apply to the Appellate Division for that, and execution of the judgment was suspended for two months to enable him to do so.

Limited Companies.

New Companies Registered.

P.C. means Private Company and **R.O.** Registered Office.

A. VERNON-WARD (LONDON), LTD. (P.C.).—Capital 10,000*l.* Objects: To carry on the business of electro-therapeutists, dentists, chemists, druggists, etc. Secretary, Gertrude Coyne. **R.O.**, 2 Vere Street, W.

R. DOUGLAS, LTD. (P.C.).—Objects: To take over the business of R. Douglas, Lothrie Aerated Water Works, Kirkcaldy, Ladybank, and Dunfermline. The first directors are R. B. Douglas, W. Kininmonth, R. Kininmonth, and D. Kininmonth.

LONDON CHEMICAL WORKS, LTD. (P.C.).—Capital 15,000*l.* Objects: To carry on the business of manufacturing chemists. The first directors are A. Smethurst, F. J. Healey, and J. G. Hyham. **R.O.**, London Chemical Works, Rubastic Road, Southall, Middlesex.

TAYLOR BROS. & COX, LTD. (P.C.).—Capital 25,000*l.* Objects: To take over the business of Taylor Bros. & Cox, importers and exporters of, and dealers in minerals, pigments, colours, and chemicals, at 51 and 52 Fenchurch Street, E.C. The first directors are A. S. Taylor, S. Cox, and H. J. Taylor.

Company News.

SANITAS CO., LTD.—The annual general meeting of the shareholders was held at Winchester House, London, on May 26. Mr. C. T. Kingzett, F.I.C., F.C.S., presided, and, in moving the adoption of the report and accounts (*C. & D.*, May 22, p. 70), congratulated the shareholders upon a record year's trade and the maintenance of the dividend of 7½ per cent. paid for so many years. Notwithstanding the war, the turnover and profit were larger than in any previous year. The money contributions and gifts of "Sanitas" antiseptics and disinfectants made by the company to the various war funds were approved, as also the announcement that a general increase in wages had been made to compensate for higher cost of living. The company has completed the erection of a relief factory to meet growing requirements without raising any fresh capital. The report and accounts were unanimously adopted.

Gazette.

Bankruptcy Acts.

RECEIVING ORDER.

JONES, H. S., 213 Wimborne Road, Winton, Bournemouth, physician and surgeon.

RECEIVING ORDER AND ADJUDICATION.

CLARKE, G. F. M. (described in Receiving Order as Fernandez Clarke), 23 Gerrard Street, Westminster, physician.

Joint Stock Companies.

Notice is given in the "London Gazette," May 25, that pursuant to Section 242 (5) of the Companies (Consolidation) Act, 1908, the names of the undermentioned companies have been struck off the Register, and such companies are hereby dissolved:

Brough Barytes Co., Ltd.; Fleetwood Chemical Co., Ltd.; Johann Maria Farina, Ltd.; Nonal Co., Ltd.; People's Remedies Co., Ltd.

Business Changes.

Authenticated notes are inserted without charge if not in the nature of advertisement, and subject to Editorial approval.

BOOTS, CASH CHEMISTS, LTD., are having premises at 57 High Street and 65 Bridge Street, Evesham, converted into a pharmacy.

MR. H. R. STOCKS, Ph.C., 32 Crown Street, Halifax, has acquired the business of the late Mr. J. H. V. Wilkinson, and will transfer it to the Crown Street pharmacy.

MR. J. GOODENOUGH, chemist, druggist, and aerated-water manufacturer, Somersham, Hunts, has disposed of his business to Mr. W. B. Green, formerly of Barnard Castle.

KILNER BROS., LTD., glass-bottle manufacturers, etc., have removed from King's Cross, London, N., to temporary premises at Blundell Street, Caledonian Road, London, N.

Births.

Authenticated notices are inserted without charge.

CARSON.—At 92 Clifton Park Avenue, Belfast, on May 11, the wife of Samuel Carson, druggist, of a son.

MOGG.—At 48 Fulham Road, South Kensington, London, on May 21, the wife of Ernest M. Mogg, chemist and druggist, of a daughter.

Marriages.

Authenticated notices are inserted without charge.

HEAL-REID.—At the Douglas Hotel, Bath Street, Glasgow, on May 20, Horace Herbert Heal, chemist and druggist, to Helen, younger daughter of Mr. Wm. Reid, 56 Kelvinhaugh Road, Glasgow.

SHIPTON-WILLIAMS.—At the Methodist Church, Sidney, British Columbia, on April 1, by the Rev. J. Wesley Miller, Trooper Bernard Shipton of "A" Squadron 2nd Canadian Mounted Rifles, to Olive, third daughter of the late Mr. John H. Williams, Ph.C., and of Mrs. Williams, Sidney, B.C.

WHITELAW-SUTTON.—At the Presbyterian Church, Singapore, on April 17, by the Rev. Wm. Murray, M.A., George Cumming Whitelaw, pharmacist, son of Mr. Andrew Whitelaw, Monifieth, to Ada, eldest daughter of Mr. George Sutton, Manchester.

Deaths.

Authenticated notices are inserted without charge.

BENNETT.—At Albert Farm, Godley Green, Hyde, on May 10, Mr. J. B. Bennett, aged sixty-seven. Mr. Bennett was apprenticed to Mr. G. Shipley, chemist, Hyde, in 1861, and afterwards held various appointments, including that of dispenser to Oldham Infirmary. He finally became Welsh representative of T. Hodgkinson, Prestons & King, from which position he retired to Godley Green over ten years ago. The interment took place at Southport Cemetery on May 14.

CASWELL.—At Northfield, Birmingham, recently, Mr. Charles Benjamin Caswell, F.I.C., for nearly forty years chemist at the works of J. & E. Sturge, Northfield, aged sixty-five. Mr. Caswell's experience included two years (1873-75) as assistant to the borough analyst of Sheffield. There he gained great experience. From the foundation of the Midland Institute Scientific Society in 1872 Mr. Caswell was one of its most active members and was one of the past presidents. In 1878 he was elected a Fellow of the Institute of Chemistry.

ERSKINE.—On May 23, Mr. John Erskine, chemist and druggist, Castle Street, Kirkcudbright, aged about seventy. Mr. Erskine was a native of Kirkcudbright, and served his apprenticeship with the late Mr. Forsyth, chemist, there. He began business on his own account in Union Street over forty years ago, and in 1875 removed to the Castle Street premises. He took an active interest in local public affairs, and was a member of the Town Council for nine years. Mrs. Erskine and three sons survive him.

GIBSON.—At 15 Waterloo Street, Hove, on May 18, Mr. Frederic Gibson, chemist and druggist, aged fifty-five.

HENDERSON.—At Duns, on May 15, Robert Hood Henderson, chemist and druggist, of Chirnside, Berwickshire, aged sixty-nine.

MÜLLER.—At his residence, Crosby Hill, Camberley, on May 23, from heart-failure, Dr. Hugo Müller, F.R.S., 13 Park Square East, Regent's Park, N.W., aged eighty-one. Dr. Müller was a past President of the Chemical Society. He graduated as Ph.D. at the University of Göttingen, and came to this country nearly sixty years ago. He was an expert on colours and pigments, and was associated with the firm of De La Rue, printers of postage and other stamps. He became a Fellow of the Chemical Society in 1859, and was first appointed a member of the Council in 1863. He served as Foreign Secretary from 1869 to 1885, and as President from the latter year until 1887. He had also been a Fellow of the Royal Society for the greater part of his life. He was a D.Sc. of the Manchester University and LL.D. of St. Andrews. Dr. Müller was an exceedingly lovable man, of retiring disposition. The outbreak of the war last August was a great shock to him, and

he became despondent consequent upon the undreamt-of barbarities of Germany. The funeral took place at Brookwood on Thursday, May 27.

MURRAY.—On May 23, Mr. Matthew David Murray, chemist and druggist, Dalbeattie, aged sixty-three. Mr. Murray was a native of Ecclefechan, and served his apprenticeship with the late Mr. Halbert, chemist, Annan. After experience in Edinburgh (where he passed the Minor examination in 1874) and Glasgow, he acquired the business of Mr. W. Graham, 68 High Street, Dalbeattie, which he carried on for thirty-six years. Mr. Murray is survived by a widow and four sons.

PUGHE.—At Llanfairfechan, recently, Mary, wife of Mr. R. O. Pughe, chemist and druggist, Mona Pharmacy, Llanfairfechan, aged seventy-two.

SMITHETT.—At Beaumont, Eastbourne, on May 18, Mr. William Smithett, formerly a partner in the firm of Wilson, Smithett & Co., produce brokers, 39 Mining Lane, London, E.C., aged seventy-six. Mr. Smithett retired from business about ten years ago.

TOOGOOD.—At University College Hospital, on May 21, Mr. William Leonard Toogood, managing director of



Mr. Toogood.

William Toogood, Ltd., druggists' sundriesmen, 77 Southwark Street, London, S.E., aged fifty-five. Mr. Toogood had not enjoyed the best of health during the last few years, and died after an operation performed upon him in the hope of betterment. He was the elder surviving son of the late Thomas Toogood, of Wimbledon and Southwark Street, who with his brother founded this well-known druggists' sundries business. As soon as his school-days were over, Mr. W. L. Toogood entered the business, and became thoroughly familiar with it in all departments. For about fifteen years he represented the firm in the

West-end of London, and thus became personally known to most pharmacists in the West-end, who held him in high esteem. The funeral took place at West Norwood Cemetery on May 26.

WILLIAMS.—In the issue of the *C. & D.* for May 15, the death of Mr. J. H. Williams, Ph.C., formerly of Bournemouth, and latterly of Sidney, Victoria, British Columbia, was reported. The "Pharmaceutical Record" of the province, in an appreciation of Mr. Williams, states that he is survived by Mrs. Williams and six children, one son being in Belgium with the R.A.M.C. When he went out to Canada in June 1913, Mr. Williams took a position for a few weeks with Mr. W. S. Terry, Fort Street, Sidney, and opened a drug-store in that town in January 1914, having passed the Major examination of British Columbia in October 1913 with credit. The editor adds: "He was of a quiet, happy disposition, a sterling friend and a perfect gentleman—one whom we were proud to know as a comrade, and whose decease we feel deeply."

Killed in Action.

SMITH.—Recently, Private Bryan Smith, 7th King's Liverpool Regiment, former assistant of Mr. J. Joye, chemist and druggist, London Street, Southport. Private Smith, who enlisted at the commencement of the war, was shot through the head.

BABY'S "COMFORTER" CONDEMNED.—The medical officer of health for Hurst, in his recently published annual report, states that the "disgustingly filthy so-called 'baby's comforter' should be abolished."

ANTI-VERMIN.—In an article in the "Pharmaceutische Zeitung" Dr. Karl Dieterich states that the active ingredient of "Helfenberger Russensalbe" is a condensation-product of formaldehyde and benzol, which, while quite harmless to the human skin, is very poisonous to pediculi. The ointment also contains several other substances which have been widely recommended for this purpose, but does not contain anisol, as this substance requires the greatest care in its use. According to Dr. Dieterich, the taste of anisol is unendurable; it evaporates too quickly and causes damage to the skin, while the inhalation of the vapour gives rise to congestion in the head. Dr. Dieterich strongly urges caution in its application.

Personalities.

Authenticated notes are inserted without charge if not in the nature of advertisement, and subject to Editorial approval.

GREENWICH GUARDIANS have appointed Miss Lucia Selfe, Clapham, dispenser at their Royal Hill dispensary.

MR. ALFRED SHAW, chemist and druggist, Riddings, Derbyshire, has completed fifty years' service as sub-post-master there.

MR. W. J. BARNES, chemist and druggist, Dover, has been re-elected Vice-Chairman of the East Kent Joint Sanitary Committee.

MR. A. E. HOBBS, Ph.C., Tunbridge Wells, has been appointed Director of Ceremonies of the Holmesdale Lodge of Freemasons, of which he is P.M.

MR. LIONEL WALSH, of Lennox, Ltd., Cape Town, is progressing favourably after his recent operation, and hopes to be able to resume his duties very shortly.

CAPTAIN J. H. B. WIGGINTON, A.S.C., was re-elected a member of the Board of Management of the Buyers' Provident Association at the annual meeting on May 18.

THE Albert Medal of the Royal Society of Arts for the current year has been awarded to Professor Sir Joseph John Thomson, O.M., D.Sc., LL.D., F.R.S., for his researches in physics and chemistry, and their application to the advancement of arts, manufactures, and commerce.

MR. W. R. FINDLAY, who has been appointed managing director of Lever Bros., Ltd., is a native of Forfar. He was for some time in business in Africa, then became managing director of McIver & Co., Liverpool, a post which he held for a number of years until the business, and with it his services, was taken over by Lever Bros.

MR. EDWARD MILLHOUSE, chemist and druggist, 26 New Road, Gravesend, and 80 High Street, Northfleet, has found it necessary to publish a legal notice contradicting slanderous rumours regarding his nationality. He states that he is a natural-born British subject and has no German relations or connection. Mr. Millhouse passed the Minor examination in December 1883.

BAILIE ROBERT SINCLAIR, chemist and druggist, Falkirk's new Magistrate, has been in business in Falkirk for twenty-one years. He is a native of Dunfermline, where he received his early training in pharmacy. Bailie Sinclair has represented the Camelon Ward of the burgh on the Town Council for five years. He is Right Worshipful Master of Lodge St. John, No. 16, Falkirk, and Immediate Past Sovereign of Zetland Red Cross Conclave. He was introduced to the magisterial bench on May 24 by Provost Bogle.

Wills.

MR. GEORGE FREDERICK CLIFTON, chemist and druggist, 4 Hamilton Street, Bury, who died on March 30, left estate valued at 634*l.* 16*s.* 7*d.* gross, with net personalty 377*l.* 19*s.* 8*d.*

MR. HUGH DUNBAR STEWART CORRY, registered druggist, 25 Snugville Street, Belfast, who died on February 22, left personal estate in the United Kingdom valued at 468*l.* 17*s.* 8*d.*

MR. SAMUEL SOWDEN, chemist and druggist, 144 Paley Road, Bowling, Bradford, who died on April 26, left estate valued at 734*l.* 8*s.* 2*d.* gross, with net personalty 715*l.* 15*s.* 8*d.*

MR. THOMAS ALEXANDER BURGESS, chemist and druggist, 17 George Street, Port Talbot, Glam., who died on May 5, left estate of the gross value of 1,384*l.* 17*s.* 9*d.*, of which 211*l.* 9*s.* 6*d.* is net personalty.

MR. FREDERICK TREE, Ph.C., 56 King's Road, St. Leonards-on-Sea, who died on March 8, left estate valued at 3,620*l.* 1*s.* 2*d.* gross, with net personalty 2,220*l.* 13*s.* 1*d.* Probate of his will has been granted to his widow, Mrs. Margaret Tree, of the same address, and his brother, Mr. John Tree, Ph.C., Golder's Green, N.

MR. THOMAS JOHNSON, chemist and druggist, Kingsland, Princes Avenue, West Kirby, Cheshire, who died on February 1, left estate of the gross value of 6,490*l.* 1*s.*, of which 5,657*l.* 4*s.* 11*d.* is net personalty. The testator left his household and personal effects to his niece Emma Johnson; 20*l.* to Edward Joseph Jukes; and the residue of his estate as to two-thirds to his niece Emma Johnson and one-third to his niece Martha Johnson.

Trade Notes.

TWO THINGS WANTED in these summer days are the straw-hat cleaner and the "Foot Ease" foot-bath powder manufactured by Arthur H. Cox & Co., Ltd., of Brighton, as to which particulars are given in an announcement in this issue.

EXCELSIOR CRÊPE BANDAGE is made by W. Gimber & Son, surgical bandage and instrument makers, 44 Queen's Road, Peckham, London, S.E., and can be obtained direct from them in wholesale quantities, but retailers can obtain it through wholesale and sundries houses.

ERSOM SALT, which some newspapers have reported to be in short supply, can be obtained from William Blythe & Co., Ltd., chemical-manufacturers, Church, Lancashire, who are also makers of zinc sulphate, and those who are in want of either salt can obtain samples and quotations from them on application.

FANCY STATIONERY suitable for chemists to retail is offered by May, Roberts & Co., Ltd., London and Dublin. They put it up in attractive packages of a distinct character for chemists, and they illustrate in their announcement three styles of it which speak for themselves, especially in the matter of profit yielded.

CHEMICAL PLANT.—The advertisement in this issue of Blair, Campbell & McLean, Ltd., Woodville Street, Govan, Glasgow, enumerates some of the special manufactures for which the company construct plant. These purposes are connected with pharmaceutical and chemical manipulations and are of great interest to manufacturers.

PRINTED STRING is one of the nicest things that chemists can use for small parcels. It is neat and advertises the chemist's business without ostentation. John Gosheron & Co., 82 Fleet Street, London, E.C., supply the string in reels at from 2s. to 2s. 6d. carriage paid, and a handsome nickel-plated stand for the reels, with cutter, at 3s. 6d.

THE SCHOOL OF PHARMACY of the Pharmaceutical Society of Great Britain is the oldest of the kind in the British Empire, and particulars in regard to courses of instruction, including a special short course for students who have received adequate scientific training, can be obtained on application to the Dean, Professor Greenish, F.I.C., 17 Bloomsbury Square, London, W.C. The next full session begins in October.

A NOTE ON SUMMER TRADE is inserted in this issue by Goodall, Backhouse & Co., Leeds, who give special quotations for effervescent saline, health salt, medicinal liquid paraffin, and British Lysol, each being put up ready to retail; but Goodall, Backhouse & Co. also supply them in bulk quantities. The spell of sunshiny and hot weather makes this announcement opportune. The firm publish a full list of their specialities, which they send to buyers on application.

THE MASON-PEARSON HAIR-BRUSH, which was advertised in the *C. & D.* last week, has attracted a great deal of attention in the trade, and the Mason-Pearson Selling Agency, Ltd., 61 New Oxford Street, London, W.C., has in consequence found it advisable to defer the front-page advertisement in the "Daily Mail" for a fortnight, so that retailers who desire their names to be inserted in that advertisement as agents have still time to communicate with the Agency.

THE P.A.T.A. PROTECTED LIST for May contains the following additions: Barclay's Indian Insect-killer (two sizes); Christy's T.M. Smokers' Tooth-paste; Harker's Lysol (five sizes); Idris Lemon Squash; Poudre Nilde (three sizes) and Rouge Invisible Nilde; Okayloids; and Southall's Aldeform. The following are the month's additions: Casein, Ltd.'s Preparations; Evans' Leicgen (four sizes); Idris Lime-juice Cordial; Jiff Powders; and Sacht's Mercoloids (to be known in future as Marcol Tablets).

OTANGO TIME IS NOW.—The efficacy of this preparation, manufactured by The British Drug Houses, Ltd., Graham Street, City Road, London, N., as a preventive and cure for insect bites and stings, has been well proved. Moreover, the manufacturers have improved upon the original style of package, so that it is now one of the most attractive articles for counter-display, and they supply a showcard for it which is in itself an attraction. "Otango" is on the P.A.T.A. list to sell at 1s. net, this yielding a good profit.

PORTIA RESPIRATORS.—Since we wrote the note regarding the "Portia 104" respirators, made by Solport Bros., Ltd., 188 and 190 Goswell Road, London, E.C., an improvement has been provided in the shape of a waterproof case, into which the respirator can be placed wetted with hyposulphite-

of-soda solution ready for use. The respirator is an oval piece of thick cotton fabric with bound edges and elastic band, and sells at 6d., or with waterproof case at 1s. In writing to us Messrs. Solport make the useful suggestion that to protect the eyes there is nothing better than well-fitting motor-goggles. There is considerable demand from the relatives and friends of troops on active service for respirators to counteract the effects of the gases which the Germans have introduced as offensive weapons in warfare. A few of these respirators shown, in conjunction with motor-goggles, in the window or in the pharmacy, and if possible with a suitable showcard, are bound to attract attention and to stimulate sales.

SOLDIERS' RESPIRATORS.—We referred last week to the special soldiers' respirators for neutralising poisonous gases which are being made by John Bell, Hills & Lucas, Ltd., Oxford Works, Tower Bridge Road, London, S.E. We are able now to give further particulars of the patriotic manner in which the matter was taken up at the request of the War Office. Some three weeks ago, when asked to undertake the manufacture, premises adjoining the Oxford Works were at once arranged as a factory, and a large staff, working day and night, was soon engaged on the manufacture. So great was the urgency of the matter that this staff was supplemented by the whole of the available workers, everyone working with only one object in view—to supply our soldiers as early as possible with the means of neutralising the treacherous use of poisonous gases. A series of special experiments had to be made before the best method of neutralising chlorine could be discovered; but these have been successful, and it is satisfactory to state that a perfectly efficient respirator is being supplied in large quantities. It should be added that some inconvenience was caused to customers of John Bell, Hills & Lucas, Ltd., by temporary delay in executing regular orders, which, it is felt, was excusable in the circumstances. It should, however, be stated that the Oxford Works has resumed its normal promptitude in the execution of chemists' orders, the special respirator-factory being self-contained and now fully staffed to meet all demands of the War Office.

Trade-Marks.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Directory," 1915, p. 435.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with Mr. W. Temple Franks, Comptroller-General, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned.

(From the "Trade-marks Journal," May 19, 1915.)

- "RANURE"; for artificial manures (2). By Guarda Radium Co., Ltd., 2 East Parade, Leeds. 366,984.
- "EPHOS" with design; for chemical manures, etc. (2). By The Egyptian Phosphate Co., Ltd., 188 Saint Vincent Street, Glasgow. 366,886.
- "ODDS ON"; for chemicals (2) and for perfumery, etc. (48). By The Australian and Continental Trust Co., Ltd., 4 Tokenhouse Buildings, E.C. 367,001/003.
- "SAVALLO" with picture of man bandaging his arm; for all goods (3). By Salvallo Co., 23 Chelverton Road, Putney, S.W. 366,046.
- Label with word "PROTISTHETIC," etc.; for a dental anæsthetic (3). By J. T. Gilleard & Co., 39 Ambler Road, Finsbury Park, N. 366,301.
- "CASUALOIDS"; for medicinal capsules for external use (3). By P. Harris & Co. (1913), Ltd., Birmingham. 366,350.
- "BORACINAL" and "CREOTOL"; for medicinal chemicals (3). By M. F. Pratt, 212 and 214 Great Portland Street, W. 366,788; 367,007.
- "NEDOS"; for all goods (3). By Cooper, Son & Co., Ltd., 80 Gloucester Road, South Kensington, S.W. 367,016.
- Circular device, including picture of Yeoman of the Guard and words "A BEEFEATER"; for mustard, etc. (40). By Saddler's Mustard, Ltd., 26 Great Guildford Street, Southwark, S.E. 363,486. (Associated.)
- "ZESTINO"; for food substance (42). By Cerebos, Ltd., Greatham, Co. Durham. 365,805.
- "DAHLIA"; for food substances (42). By Planters Margarine Co., Ltd., 18 West Smithfield, E.C. 366,420.
- "VINCO"; for a beverage preparation (42). By J. N. Nicholls & Co., 203A Chapel Street, Salford, Manchester. 366,930. (Associated.)

Newfoundland Pharmaceutical Society.

THE sixth annual meeting of this Society was held recently at its new headquarters in Smallwood Building, Duckworth Street, St. John's, when the election of a new Council and officers was conducted by Mr. T. McMurdo McNeil, assisted by Messrs. O'Mara and Peddigrew. Messrs. R. G. MacDonald, D. G. Fraser, M. F. Wadden, A. W. Kennedy, M. J. Murphy, P. O'Mara, H. Miller, A. Stafford, W. H. Liddy, and H. Peddigrew were elected the Council, and the officers elected were: *President*, Mr. R. G. MacDonald (re-elected); *Vice-President*, Mr. M. J. Murphy (re-elected unanimously); *Secretary*, Mr. M. F. Wadden (re-elected); and Mr. P. O'Mara (re-elected).



SERGEANT MURPHY.

Mr. M. J. Murphy, the Vice-President, is at present in Scotland, he being a sergeant of the Ambulance Division with the first contingent of the Newfoundland Regiment which is in training there. He is an interested and enthusiastic member of the craft, and held an important position on the staff of Thos. McMurdo & Co., St. John's, the oldest drug-firm in Newfoundland, of which Mr. T. M. McNeil is principal.

Chemical Society.

A MEETING of Fellows was held in Burlington House, London, W., on Thursday, May 20, Dr. Alexander Scott, F.R.S., presiding. The first paper was by Mr. R. W. Robertson on a new method for

ESTIMATING CHLORINE AND BROMINE IN ORGANIC COMPOUNDS. The method is based on the fact that when organic compounds are treated with chromic anhydride and sulphuric acid the whole of the halogen is set free. In the case of bromine it comes off as free bromine with a little hydrobromic acid, while with chlorine three bodies are formed—chlorine, hydrochloric acid, and chromyl chloride. In either case the liberated halogen is absorbed in alkali containing a small quantity of hydrogen peroxide. It was found necessary to use a special hydrogen peroxide, as the ordinary commercial qualities contain a notable quantity of chlorine. With bromine the whole of the bromine is obtained as sodium bromide through the action of the hydrogen peroxide, and the solution so obtained is made acid with nitric acid, treated with excess of standard silver nitrate, and titrated back with ammonium thiocyanate. When dealing with chlorine a complication due to the presence of the chromyl chloride is met. This is got over by treating with nitric acid, when, owing to the presence of the hydrogen peroxide, reduction occurs and the colour, due to the chromate, is removed. When dealing with a compound that sublimes it is necessary to interpose a tube filled with platinised asbestos between the reaction-flask and the absorption-tube. The results obtained are remarkably good, and the time necessary to carry out the determination is very much shorter than that required for a Carius estimation.

Dr. Pyman communicated a paper from the Wellcome Chemical Research Laboratories, by Messrs. H. W. B. Clewer, S. I. Green, and F. Tutin, on the

CONSTITUENTS OF *GLORIOSA SUPERBA*.

This plant is one of the *Liliaceæ* occurring in Ceylon and India. The plant is poisonous and the tubers are not infrequently employed for suicidal purposes. Little has been known previously about the nature of the poisonous principle. The only publication on the subject is a paper by Warden, in which the drug is stated to contain two resins, a tannin, and a bitter principle called "superbine," which was considered to be either identical with or closely allied to the bitter principle of squill. The present investigation has shown that the bitterness and toxicity of the plant are due to the alkaloid colchicine, which has hitherto been known to occur only in *Colchicum autumnale*. In the course of the investigation a number of other constituents of the plant were also isolated—viz., very small quantities of two other crystalline alkaloids, choline, dextrose, a hydrocarbon, a fatty alcohol, a mixture of phytosterols containing stigmasterol, a mixture of phytosterol

glucosides including stigmasterol glucoside, and a number of acids. The acids were palmitic acid, a mixture of unsaturated fatty acids, benzoic acid, salicylic acid, and a hitherto unknown methoxy-salicylic acid—namely, 6-methoxy-2-hydroxybenzoic acid.

The only other paper was by Dr. George Senter on the Walden inversion. The particular point discussed was the mechanism of the hydrolysis of phenyl chloroacetic acid, and it was shown that the reaction follows the unimolecular law, and that it is only the free ion which undergoes hydrolysis.

Chemists' Dental Society.

THE annual meeting of members of this Society took place at the Holborn Restaurant, London, on May 19. Mr. Templar E. Malins, of Cardiff (President), took the chair, and the following were also present: Messrs. K. Nixon (Long Eaton), J. Hearle (Islington), Percy Inge (Winchester), S. V. Brook (Lavender Hill), F. S. Higgins (Stevenage), J. H. Tasker (Fulham), W. L. Barrett (Gillingham), Stanley Riley (Flint), H. J. Morgan (Kimbolton), F. J. Fairweather (Sydenham), J. W. Roberts (Tavistock Place), Treasurer, and Benson Harries (Newport), Secretary.

The Secretary presented the

ANNUAL REPORT,

of which the following is an abstract:

PARLIAMENTARY REPRESENTATION.—The Hon. General Secretary has for some time been making efforts to secure the services of a member of Parliament who would watch the interests of dental chemists in the House, and in the autumn he was able to report to the Council that he had succeeded in enlisting the interest of a member who would undertake the work.

NATIONAL DENTAL CORPORATION, LTD.—The proposed amalgamation with this Society came under consideration at the end of 1914, and some heads of the proposed agreement were formulated and submitted by post for the approval of the members, 90 per cent. of whom signified they were in favour of the amalgamation. A meeting of the General Purposes Committee was called, and took place in London, to consider the matter in detail and meet the Committee of the National Dental Corporation. When the Joint Committee sat there was some difficulty as to the supply of the "Dental Surgeon" and the question of advertising. It was felt that the original terms as provisionally accepted were departed from in more than one particular. In particular the annual subscription of one guinea was stated not to include both the insurance premium and the "Dental Surgeon." Further correspondence between the Secretaries has not availed to bring about an agreement, and therefore it was necessary to submit the question to the members in the circular giving notice of the annual meeting.

THE "DENTAL SURGEON."—It has always been felt that it would be a good thing to have a small magazine for circulation monthly or quarterly in furtherance of the objects of the Society, and this led to the idea that the Society might arrange to make use of the "Dental Surgeon." In connection with the proposed amalgamation, the "Dental Surgeon" has been posted to the members from January to April under a temporary arrangement with the publishers.

ACCIDENT INSURANCE.—The Council report with satisfaction that, so far as they are aware, no claims have been made by members under the insurance scheme during the year.

TECHNICAL INSTRUCTION.—The Secretary has received a communication from the Education Committee of the London County Council asking for an expression of opinion upon their proposed scheme of classes for technical instruction in mechanical dentistry. A full reply was made to this, and further communications may be received. The attention of members is drawn to this matter, especially those in the Metropolis. Such classes would no doubt be of value, and it is possible that the move may have deeper significance as the beginning of a public effort to supply the shortage of practitioners which will be necessary for public service under the National Insurance Act.

The report was adopted.

The financial statement, which showed a substantial balance in hand, was next presented.

ELECTION OF OFFICERS.

The officers were all re-elected, as follows: President, Mr. Templar Malins; Vice-President, Mr. K. Nixon; Treasurer, Mr. J. W. Roberts; Secretary, Mr. Benson Harries; and auditors, Messrs. Wigginton (Kennington) and E. Millar (Victoria Dock).

The retiring members of the Council were also re-elected, the constitution of the Council being therefore as follows: Messrs. Malins, Tasker, Brownbill, Nixon, Roberts, Harries, Fairweather, Hearle, Smith (Ireland), Dickenson, Paterson, McLelland, Fuge, and Smith (Manchester).

OTHER BUSINESS.

The principal business was the proposed amalgamation of the Society with the National Dental Corporation, Ltd., and after discussion it was finally agreed that the amalgamation should take effect as from next January, the new Society to be called the National Dental Society. The members of Council present (with power to add to their number) were constituted a Committee to carry out the necessary arrangements.

The meeting also considered and discussed the proposed classes for technical dental instruction intended to be started by the London County Council Education Department. The idea was favourably received, and suggestions were offered for the consideration of the Education Committee, which the Secretary was instructed to forward.

AMALGAMATION PROPOSALS.

There followed a joint meeting of the Committees of the Society and the National Dental Corporation, presided over by Mr. Teague, the President of the N.D.C., when the following agreement was arrived at with regard to the amalgamation:

1. The title of the new Society to be The National Dental Society, Ltd.
2. The amalgamation to come into force on January 1, 1916.
3. The Annual Subscription of 21s. to include the "Dental Surgeon."
4. Members to have the option of adopting the insurance scheme, for which the annual premium is 10s.
5. The first Secretary to be Mr. F. Victor Fisher.
6. Mr. Benson Harries to be the Parliamentary Secretary.

The meeting stands adjourned until the first week in October.

Coming Events.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Tuesday, June 1.

Röntgen Society, Cancer Hospital, Fulham Road, London, S.W., at 8.15 P.M. Annual general meeting.

Wednesday, June 2.

Pharmaceutical Society of Great Britain, 16 Bloomsbury Square, London, W.C., at 11 A.M. Council-meeting.

Thursday, June 3.

Great Yarmouth Pharmaceutical Association, at 8.30 P.M. Ordinary meeting.

Chemical Society, Burlington House, Piccadilly, London, W., at 8.30 P.M. The following papers will be communicated: "A Thermal Study of the Carbonisation Process," by Messrs. H. Hollings and J. W. Cobb; "The Properties of Cold-worked Metals. Part I. The Density of Metallic Filings," by Messrs. T. M. Lowry and R. G. Parker.

Friday, June 4.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 9 P.M. Professor Sir Ernest Rutherford on "Radiations from Exploding Atoms."

FAIRCHILD SCHOLARSHIP AND PRIZES.—Tuesday, June 1, is the last day on which applications to sit for the examination for the 1915 scholarship and prizes can be received by the Secretary to the Committee of Trustees, Mr. A. E. Holden, Albert Chambers, 64-65 Holborn Viaduct, London, E.C.

BRITISH INDUSTRIES FAIR.—A memorial, signed by 99 per cent. of the exhibitors at the British Industries Fair, which closed at the Agricultural Hall, London, on May 21, was presented on the closing day to the Board of Trade requesting that the Fair should become annual.

Some New Essential Oils.

A NUMBER of new essential oils are described in Schimmel's Report, recently published in Germany. Among these are the following:

Erotheca Copalillo, one of the *Sapindaceae*, yields an oil of specific gravity 0.8504, optical rotation +0° 50', acid-value 10.2, and ester-value 13.1. It has a distinct linalool odour, but does not appear to contain much linalool.

A Bombay herb, known locally as *Doz*, which is a variety of *Artemisia maritima*, yielded 0.24 per cent. of a dark-green oil, of specific gravity 0.9696, acid-value 1.8, and ester-value 4.2. The oil appears to have some relationship with the other *Artemisia* oils.

The Himalaya cedar (*Cedrus Deodara*) yields a yellow essential oil of specific gravity 0.953, rotation +53° 8', refractive index 1.51565, acid-value 2.9, ester-value 14.9, and ester-value after acetylation 39.2. It distils principally between 253° and 259°. It contains a ketone which yields a semi-carbazone melting at 158°, probably identical with that found in the Atlas cedar oil, and a sesquiterpene not identified.

McLaleuca hypericifolia leaves, grown in Amani (East Africa), yield an oil having a specific gravity 0.9145, optical rotation +0° 18', and refractive index 1.46271. It contains 72 per cent. of eucalyptol, as determined by the resorcin method, and resembles eucalyptus oil generally. Cajuput oil is distilled from the leaves of *M. leucadendron*, but varieties of this plant grown in Amani yielded an oil of entirely different characters. In fact, no less than 78 per cent. of methyl chavicol was found in the oil, and two samples had the following (I. and II.) characters, which completely differentiate the oil from cajuput oil (III.):

	I.	II.	III.
Specific gravity ...	1.0019	0.9056	0.919-0.930
Optical rotation ...	-3° 44'	-0° 22'	-4°
Refractive index ...	1.5250	1.4794	1.460-0.467
Acid-value ...	0.4	0.7	—
Ester-value ...	7.6	11.8	—
„ after acetylation	15.2	84.8	—

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

Oil of Ramona Stachyoides.—Burke and Scallione ("Jour. Ind. Eng. Chem.," 1914, 804) have examined the oil distilled from the leaves of this plant, and find it to have a specific gravity 0.8979; optical rotation, +24°; refractive index, 1.4729; acid-value, 2.2; and ester-value, 1.6. There were found present the terpene pinene, eucalyptol, thujone, and camphor, besides a small amount of an unidentified terpene.

Copaiba Oil.—A sesquiterpene has been recently isolated from the oil of African copaiba which is not identical with cadinene, but which gives cadinene hydrochloride on treatment with hydrochloric acid. Semmler and Stenzel ("Berichte," 1914, 2555) have examined this substance, which they have named copene, and consider it to be a new type of tricyclic sesquiterpene. On reduction with platinum it yields dihydrocopene, C₁₅H₂₆, boiling at 121° at 12 mm. pressure.

Japanese Mandarin Oil.—Schimmel & Co. have examined and reported on three samples of Japanese mandarin oil obtained by distillation of the orange-peel. These oils had the following characters:

	I.	II.	III.
Sp. gr. ...	0.8489	0.8528	0.8541
Optical rotation ...	+92° 35'	+75° 36'	+68° 5'
„ „ of 1st 10% ...	+91° 32'	+66° 10'	+60° 48'
Acid-value ...	0.3	0.3	0.3
Ester-value ...	3.7	3.6	4.6

Three other samples, distilled from the mandarin-like fruit known in Japan as "Mikan," were also examined. These samples all had a specific gravity of about 0.848 and an optical rotation of +90° to +92°. Italian mandarin oil has an optional rotation of +65° to +75°.

Adulteration of Saffron.—Brierre Fils, Pithiviers-en-Gatinais, directs attention to a new adulteration of saffron which does not in any way resemble those sophistications which have already been pointed out. The sample, which was guaranteed pure Spanish saffron, had a remarkably striking colour and a very aromatic odour. Certain physical peculiarities aroused suspicion, and on examination the sample yielded 26 per cent. of ash, analysis of which, in comparison with an analysis of the ash of genuine saffron, indicated the presence in the suspected sample of 38 per cent. of alkali salts, consisting of crystallised sodium

borate (13.99 per cent.), crystallised sodium sulphate (11.23 per cent.), neutral potassium tartrate (10.096 per cent.), sodium chloride (0.117 per cent.), and ammonium nitrate (3.142 per cent.).

Otto of Rose.—According to Petkow ("Chem. Zentral.," 1914, 2020), a Swiss firm offered two preparations for the purpose of adulterating otto of rose, under the names "Stereoptene" (*sic*) and "Ceril." These two bodies were examined and found to have the following characters:

	Stereoptene.	Ceril.
Melting-point	38.5°	—
Acid-value	2.0	1.2
Ester-value	3.5	9.1
Iodine-value	4.6	174.4
Refraction-number	13 at 50°	43 at 40°

Pure otto of rose has, according to Petkow, the following characters: Specific gravity at 25°, 0.8535 to 0.851; optical rotation, -1° to -2.9° ; refractometer-number at 25°, 43.9 to 51.2; acid-value, 1.1 to 1.9; ester-number, 8.3 to 10.9; iodine-value, 170.8 to 189.1.

"Native Drugs."—The new number (vol. xiii., No. 1) of the "Bulletin of the Imperial Institute" contains a detailed account (nearly forty pages) of "Investigations of Vegetable Drugs and Poisonous Plants" made by the staff of the Scientific and Technical Department during recent years, or by other investigators with material supplied by the Institute. The drugs examined all have their source in the British Possessions, and include many "native drugs"—that is, products which have a reputation as medicines among natives. The investigations go to prove that, as a rule, these "native drugs" are disappointing from the point of view of European medicine. Notable exceptions are the Indian plant *Podophyllum Emodi* (which, as the result of the investigations by Mr. J. C. Umney and others at the Imperial Institute, is now in the British Pharmacopœia) and the Egyptian plant *Hyoscyamus muticus*, a valuable source of the alkaloid atropine. Other interesting products are the seeds of *Peganum Harmala*, long used as an anthelmintic in the East, and the seeds of *Croton Elliottianus*, which Professor Cash has investigated and shown to be a useful purgative. In another article in the same issue of the "Bulletin," Mr. W. R. Dunlop, of the Imperial Department of Agriculture for the West Indies, writes on "The Lime and the Lemon as Sources of Citric Acid and Essential Oils."

Volatile Oil of *Kæmpferia Ethelæ*.—E. Goudding and O. D. Roberts ("J.C.S.," No. 629, 1915, p. 314) have isolated from the tubers of *Kæmpferia Ethelæ* 2 per cent. (on the dry material) of volatile oil having an odour resembling orange-flower oil, combined with a less agreeable smell resembling that of crushed ivy-leaves. The oil was found to have, approximately, the following composition: Terpenes (including dipentene and probably pinene), 21.8 per cent.; cineol, 17.2 per cent.; ketonic compound (m.p. 102°), 13 per cent.; alcohols (including linalool), 11.2 per cent.; esters (chiefly or entirely methyl anthranilate), 1.3 per cent.; phenols, 0.5 per cent.; acids (chiefly or entirely acetic acid), 0.1 per cent.; residue (probably chiefly sesquiterpenes), 34.9 per cent. The lighter portion of the oil (93 per cent.) contains dipentene, cineol, linalool, methyl anthranilate, a new ketone ($C_{21}H_{34}O_4$, m.p. 102°) which yielded a hydroxylamine-oxime separating from alcohol and ether in small, hard, white crystals, which melted at 184°. Phenols, and acids. The constants of this light oil were: D_{20}^{25} , 0.9437; n_D^{25} (in 100-mm. tube), $+19^{\circ} 47'$; acid-value, 2.3; ester-value, 5.0; ester-value after acetylation, 47.6. The heavy portion of the oil (7 per cent.) has an odour recalling that of crushed ivy-leaves. It gradually became semi-solid, owing to the separation of a crystalline substance which proved to be the ketonic compound (m.p. 102°). After removal of the crystals the residual oil appeared to consist of a solution of the ketone in liquids of high boiling-point, probably sesquiterpenes.

Colour-reaction for Citric Acid.—E. P. Häusserler ("Chemiker-Zeitung," 88, p. 937) gives the following new colour-test for citric acid, and adduces evidence that the reaction is suitable for the detection of this acid in the presence of other hydroxy acids: A little vanillin, in aqueous-alcoholic solution is mixed with the solution to be tested, and the whole evaporated to dryness. A few c.c. of an alcoholic solution of vanillin is added to the residue, which is again dried. Three or four drops of diluted sulphuric acid (25 per cent.) are then well mixed with the residue and heat applied for ten to fifteen minutes on a boiling water-bath. A purple residue, dissolving in water to a green solution, which, on the addition of ammonia, becomes deep red in colour, is produced if citric acid is present. The colour is visible even when much diluted. When the solution is acidified, the colour changes to a faint green, but the red colour is regenerated on making

alkaline with ammonia. The test will detect between 0.001 and 0.002 gram of citric acid. The author first associated this curious behaviour of citric acid with the presence of the $\begin{matrix} \text{C} \\ \diagup \text{OH} \\ \diagdown \text{COCH} \end{matrix}$ group, but further experiments with other acids containing this group proved that this assumption was incorrect. Saccharine and aluminous substances prevent the production of the red colour, for which reason these substances, if present, must be removed before carrying out the reaction. The author successfully applied the test in proving the presence of citric acid in a raspberry syrup by the following procedure: 50 c.c. of the syrup was neutralised, diluted with 50 c.c. of water and 75 c.c. of alcohol, and the acids precipitated with concentrated solution of lead acetate. The lead salts were filtered off and the acids set free with sulphuretted hydrogen. The filtrate from the lead sulphide yielded, on evaporation, a brown syrup-like residue, from which part of the sugar was separated by alcohol. The acids were then converted into calcium salts by treatment with calcium carbonate, and, after further purification with alcohol and drying, a light grey powder was obtained, of which about 0.7 gram was employed for the test. The colour-reactions on treatment with dilute sulphuric acid and drying and dissolving were indistinct, but on making the solution alkaline with ammonia an intense red colour was obtained.



Postal Address:

C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
Telegraphic Address: "CHEMICUS, CANNON, LONDON" (two words).
Telephone Number: 3617 CENTRAL (three lines).

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated. Please address us as above:

110/39. "Nuo Salve" or "Muo Salve."	112/5. Frinkler's hygienic mixture.
110/56. Brand's Imperial hair-dyes.	82/6. Amadon for wound-dressing.
111/10. Phillip's formaline.	

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.:

Bickmore's gall-cure, 106/61	Mirbane oil, 111/8
Burst-off bottles, 107/70	Naphthalene, 110/10
Cerevisine, 111/100	"New Skin," 108/60
Citric acid (for Buenos Aires), 109/7	"Olympia" suspenders, 107/55
"Coraloids," 107/68	Pittylen, 110/74
Crème Simon, 111/460	Saponin, 105/44
Eau Sedatif de Raspail, 107/54	Soap-making machinery, 108/15
Ectodyne, 111/70	Sulphurous acid (anhydrous), 112/25
Fellow's syrup, 112/7	Synthetic indigo, 107/69
Formatone, 111/7	Tetlow's swan's-down powder, 111/46
Frozeclone, 108/73	"Three in One" oil, 107/53
James' phosphor paste, 112/66	"Toxol," 111/9
Kerol, 111/700	Transparent gelatin in sheets, 111/62, 111/65
Lanoline, 108/20	Water-sterilising tablets, 108/140
Levirine, 111/2	
Listerine, 112/700	
Methyl acetanilide, 111/1	

See also "War Wants Exchange" in the Coloured Supplement.

GERMAN POTASH-INDUSTRY.—At the annual meeting of the Deutsche Kaliwerke on May 15, the general directors stated that the deliveries of the potash syndicate had declined to 277,000 tons in the first quarter of 1915, from 451,000 tons in the first quarter of 1914, and the values had declined by one-half. Many works were operating at a loss, and others would only be able to earn the interest on their debentures. The syndicate wanted to increase domestic prices, but no official sanction could be obtained, and the industry was in a state of distress.

Observations and Reflections.

By Xrayser II.

The President's Lead

on the discounting question seems to me the most important feature of the annual meeting of the Society. The account he gave of what had been done with respect to the Immature Spirits Bill had great historical interest, but of more immediate concern is this proposal of a determinate step in advance, which we must either take or decline—an alternative fraught with permanent consequences of the highest importance. It required a good deal of courage on the President's part to speak as strongly as he did, and as courage is not a quality we are too familiar with in such quarters, this makes his pronouncement the more welcome. Mr. White must have felt that he had a very considerable body of opinion behind him; the subsequent discussion showed, indeed, that he had, for it made clear the fact that the discounting clause must go. It was accepted only on the understanding that we were safeguarded by Regulation 40, and, this having broken down, we can accept it no longer; there is nothing more to be said.

Mr. Glyn-Jones

has earned the undying gratitude of the trade for his unwearied labours on our behalf. For more than twenty years his work has been the means of making life easier and brighter to many thousands of pharmacists, but his latest, I hope not his last, achievement has eclipsed all his previous efforts. I do not mean that the mere amendment of a Bill by which we shall save a shilling or two on a gallon of spirit is in itself, good as it is, a glorious victory, but this is the smallest part of the work achieved. What has been gained is the acceptance of the principle that spirit used for medicine should not be subject to the same duty as spirit used for the gratification of the palate. This is the thin end of a wedge which may make an immense cleavage some day. Hitherto one of the great stumbling-blocks in the way of those who advocate duty-free spirit for certain purposes has been the inability of the Revenue officials to devise a scheme for carrying out the idea. Their attitude has always been *non possumus*—it can't be done. But now it must be done; some machinery must be created for carrying out the will of Parliament, and once it has been set in action it will be a simple matter to extend its functions till it covers a much wider field. Here, it seems to me, lies the real significance of Mr. Glyn-Jones's triumph; and here, too, may be found the solution of Insurance financial difficulties. We have therefore real cause to be grateful to our M.P., and I am certain that every reader of the *C. & D.* re-echoes your sympathetic note, your caution to go slow, and your earnest hope for his complete restoration to health.

Mr. James Mackenzie

is one of the hardy perennials whose fragrance is always so refreshing at the Bloomsbury Square May meetings; may he long be spared to provide material for discussion at what would often without him degenerate into humdrum acceptance of the cut-and-dried programme. His latest scheme is alluring to many of us in that it excites our cupidity in a marked degree.

Epsom Salt,

to which Mr. Knight referred as one of the things no longer made in England, has an interesting history. The properties of the spring at Epsom were discovered, it is said by accident, some three hundred years since; the water soon became famous, and in Restoration times Epsom was a fashionable watering-place. The salt was first obtained by evaporation; naturally it was very dear, costing, says Quincy, a shilling an ounce, which would be at least three or perhaps four shillings of our present money. Improved methods of extracting it from various waters brought down the price to thirty shillings per hundredweight, but this cheaper

salt was regarded by him as a fraud. Brookes, however, considers Quincy's attack on the "Furnace-philosopher" who exploited Dr. Grew's researches into the nature of the water as uncalled for, and says the salt had peculiar virtues of its own. It first became official in 1746 under the name *sal catharticus amarus*, which in 1788 was altered to *magnesia vitriolata*, and in 1809 to *magnesie sulphas*. It is curious that whereas *magnesia alba* was once officially made by precipitation of a solution of this salt with liquor potasse, the salt itself was afterwards obtained from magnesian limestone. Before this its chief source was sea-water, the magnesian salts of which were known as *bittern*.

The Political Changes

of the last week affect pharmacists only as they affect the whole country, but they mark a difference in the national attitude which will react upon us all, both as regards our personal and our corporate life. The formula "Business as Usual" must now be understood with a difference. Business cannot be quite as usual when any fit man is liable to be called upon for special service that may interfere with his business, and this is a contingent liability we have now to face. The formation of a "National Government" anticipates a concentration of the national force, an intensifying of the national life, with the one object of ending the war as speedily as possible, and of so ending it as to insure us against its recurrence. Service of some kind to this end will be demanded of all who can render it. How will this affect us in our business? It will leave us less to do, and fewer men to do it; it will necessitate increased economy—the avoidance of all avoidable expenses; it will be a call for patience and strength; it ought to make us more tolerant, more considerate, more charitable with respect to others than ourselves. We are all in the same boat, and we sink or swim together. There are no longer any parties in the country; there must be no party spirit. Mistakes have been made, and will be made again, both by the Government and by different sections of the people; we must regard them as national mistakes, for which we are all in some measure responsible, and do our best to avoid and amend them by mutual forbearance and good will. The great virtue just now for those of us who cannot actively help is silence; for those who can it is the cheerful acceptance of any duty to which we may be called.

My Pro Tanto Preliminary

observation two weeks ago has aroused the opposition that was expected. No proposal that threatens to interfere with somebody's vested interest ever yet passed *nem. con.*, and no one surely is so silly as to think that I looked for a universal acceptance of my idea. Dr. McWalter does not think that the G.M.C. will favour even the *pro tanto* part of the Preliminary. He may be right, but in that case the whole scheme is doomed to sterility, and the Pharmaceutical Council had better preserve its powder for some more get-at-able reform. Of course, the Secretary has already "given the show away," for even if this proposal be accepted as it stands, it will do little to smooth the path to men, say of thirty, who might be tempted to "do their bit" by helping to replace the depleted ranks of the medical profession. To expect the average man of thirty to go back to schoolboy subjects is hopeless, because, for one reason, the faculty of recollection has been largely replaced by the faculty of ratiocination. To the memory of seventeen the Medical Preliminary may be child's play, but to the man of twenty-seven it is a much more difficult matter. With regard to the science subjects, I would not ask any concession were it not that it is common knowledge that for the last twenty years the standard of the Minor examination in chemistry, physics, *materia medica*, pharmacy, and botany has been much higher than the standard of any medical examining board in this country, and there is not the least reason for thinking that the adoption of this part of my proposal would in any degree whatever lower the qualification in the subjects mentioned.



A WORD OF WARNING.

In view of the present congested state of the Railways, the Trade generally, and especially the Wholesale Trade, are advised to maintain larger "SANITAS" stocks, and to order supplies as far in advance as possible, so as to avoid the delay and inconvenience which may otherwise be incurred.

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Editorial Articles.

Spirituos Medicines.

I. Potential Differentiation.

In our issue of May 8, when discussing Mr. Lloyd George's proposed doubling of the spirit-duties, and the necessity for excluding from this impost spirits used for medicinal purposes, we explained fully the difficulties to be encountered in differentiating such spirits from spirits used as alcoholic beverages. Since then there has been a radical transformation—the double duties have been withdrawn; a surtax of 1s. 6d. per proof gal. has been placed upon immature spirits, and as the latter

necessarily include rectified spirit used in medicine and medicinal preparations, the Chancellor of the Exchequer provides in the Finance (No. 2) Bill for a rebate of the surtax. This Bill is one of five parts and nineteen clauses. Part I. deals with Customs and Excise (tea, immature spirits, and repayment of liquor-licence duty), Part II. contains eleven clauses about income-tax, Part III. is about national debt and loans, and the other parts are "miscellaneous" and "general." We printed the second clause last week, but repeat it as being the basis of the present observations:

DUTIES ON IMMATURE SPIRITS.—2. In addition to the duties of Customs payable on spirits imported into Great Britain or Ireland there shall, as from the eighteenth day of May nineteen hundred and fifteen, be charged, levied and paid the duties specified in Part I. of the Schedule to this Act; and in addition to the Excise duty payable on spirits there shall, as from the same date, be charged, levied and paid the duties specified in Part II. of the Schedule to this Act:

Provided that—

- The additional duties under this section shall not be charged on mixtures, compounds, or preparations which on importation are charged with duty in respect of the spirit contained in them or used in their preparation or manufacture; and
- If any person proves to the satisfaction of the Commissioners of Customs and Excise that any spirits to which the restrictions contained in the Immature Spirits (Restriction) Act, 1915, do not apply, have been delivered to him and used solely in the manufacture or preparation of any article recognised by the Commissioners of Customs and Excise as an article used for medical purposes or have been used for scientific purposes, that person shall be entitled to obtain from the Commissioners repayment of the amount of duty (if any) paid under this section in respect of the spirit used.

Here, then, in spite of all that was said three weeks ago about the difficulties of differentiation, the process commences, the first step being differentiation of Customs duties from Excise duties. The additional duties referred to in (a) are those specified in the first table in the second column of p. 76 of our issue of May 22; substantially it means that the surtax of 1s. 6d. per proof gal. will not be imposed upon spirituous medicines when imported. This means, therefore, that imported spirituous medicines are differentiated fiscally from home-manufactured preparations of the same nature. The phraseology of (a) follows that of Section 1 (i) (a) of the Immature Spirits (Restriction) Act, and the context limits the exemption from surtax to medicinal preparations. This exemption has not actually commenced, however, and cannot until the Bill is sanctioned by the King. In the meantime the Customs authorities are exacting the full duty of 15s. 9d. per proof gal. on imported spirituous medicines. Whether there will be a rebate of surtax so paid is not at present known. It seems desirable that the House of Commons should pass a resolution on the subject forthwith, if the Bill is to be slow in passing through Parliament. It will be noted that *the exemption does not apply to rectified spirit*, which is as liable to surtax on importation as it is when home-made and delivered from the makers before being warehoused for the periods prescribed by the Immature Spirits Act. Moreover, *there is no rebate on rectified spirit as such*: it is only when it has been used in the manufacture or preparation of articles used for medical purposes that the Commissioners may authorise a rebate; see (b) above. The spirit is thus differentiated by the Act from similar spirit used in the preparation of culinary essences and the like, perfumes, toilet-preparations, and all other spirituous compounds which are not statutory remedies or otherwise medicinal compounds or mixtures as mentioned in the Act and the Finance Bill. It should be particularly noted that the latter gives rebates of surtax on articles to *any person* who proves certain things

to the Commissioners, whereas the delivery of immature spirits is under the Act restricted to—

- (1) Licensed rectifiers.
- (2) Manufacturing chemists.
- (3) Manufacturers of perfumes.
- (4) Other persons licensed by the Commissioners of Customs and Excise.
- (5) Chemical and other scientific workers, laboratories, universities, and the like.
- (6) Registered chemists and druggists and limited companies and partnerships (in Scotland) entitled to carry on business as such.

As there is this statutory differentiation as to who may and who may not receive the spirit in practice, the payment of rebate will be confined to those in the list who use the spirit of making medicinal preparations—viz., those under (2), (4), and (6): we presume that Hospitals, medical men, and others who make medicinal preparations will come under (4). As to the articles upon which a rebate may be granted, we suggest that a beginning is provided by "The British Pharmacopœia," and so far as other books are concerned the Commissioners of Customs and Excise may follow departmental usage by recognising medicinal preparations of other Pharmacopœias and those for which formulas are given in books of reference recognised by the Commissioners for the purpose of exemption of known, admitted, and approved remedies from medicine stamp-duty. We append two lists of British Pharmacopœia preparations containing more than 2 per cent. of spirit, and these may be regarded as another step in the process of differentiation:

British Pharmacopœia preparations containing alcohol:

Acid. sulphuric. arom.	Spirit lavand.
Collodium	" menth. pip.
Collod. flexile	" myristicæ
Dec. aloes co.	" rosmarini
Ext. agropyri liq.	Succ. scoparii
" belæ liq.	" taraxaci
" bellad. liq.	Syr. aromatic.
" cascara sag. liq.	" aurantii
" cinchon. liq.	" casc. aromat.
" ergot. liq.	" limonis
" glycyrr. liq.	" rhei
" gossyp. radi. cort. liq.	" rhæados
" grindel. liq.	" sennæ
" hamamel. liq.	" zingiberis
" hydrast. liq.	Tinct. aconiti
" ipecac. liq.	" alstoniæ
" kavæ liq.	" arnicæ flor.
" nuc. vom. liq.	" asafetidæ
" opii liq.	" aurantii
" picrorh. liq.	" belladon.
" vibur. liq.	" benzoini co.
Lin. aconiti	" berberid.
" belladon.	" buchu
" camph. amm.	" calumbæ
" crotonis	" camph. co.
" opii	" cannab. ind.
" saponis	" cantharidini
" sinapis	" capsici
Liq. ethyl nit.	" cardam. co.
" formaldehydi sap.	" cascarillæ
" hamamelidis	" catechu
" morphin. acet.	" chirate
" " hydroch.	" chlorof. et morph. co.
" " tart.	" cinchon.
" pancreat.	" " co.
" picis carb.	" cinnamomi
" strych. hydrochl.	" cocci
" trinitrini	" colchici
Mist. ferri co.	" cubebæ
" sennæ co.	" daturæ semi.
Spirit. ætheris	" digitalis
" " nit.	" ergotæ amm.
" " amm. arom.	" ferri perchlor.
" " fetid.	" gelsemii
" anisi	" gentianæ co.
" armor. co.	" guaiaci amm.
" cajuputi	" hamamelidis
" camphoræ	" hydrastis
" chloroformi	" hyoscyami
" cinnamomi	" iodi fortis
" juniperi	" " mitis

Tinct. jalapæ	Tinct. rhei co.
" kaladanæ	" scillæ
" kino	" senegæ
" krameriæ	" sennæ co.
" lavandulæ co.	" serpentariæ
" limonis	" stramonii
" lobeliæ æth.	" strophanthi
" myrrhæ	" tolutana
" nucis yomicæ	" urginæ
" oliveri cort.	" valerianæ amm.
" opii	" " ind. amm
" " amm.	" zingiberis
" picrorhizæ	Ung. hamamelidis
" podoph.	Vin. antimoniale
" " ind	" aurantii
" pruni virg.	" colchici
" pyrethri	" ferri
" quassia	" " cit.
" quillaiæ	" ipecac.
" quininæ	" quininæ
" " amm.	" xericum

B.P. preparations made with alcohol, though it does not remain in the final product:

Æther	Ext. rhei
" acet.	" strophanth.
" pur.	Fel. bov. pur.
Ext. bellad. sicc.	Jalap. res.
" cannab. ind.	Kalad. res.
" coloc. co.	Podoph. ind. res.
" hyoscy.	" res.
" nuc. vom.	Styrax præp.

The second list is given because the clause of the Finance Bill does not exclude preparations such as those in the list from the rebate of the surtax, supposing duty-paid spirit is used in making these articles. By the terms of the Bill every one of the preparations named in the lists, and all similar preparations used for medical purposes, will be entitled to rebate *provided the Commissioners of Customs and Excise recognise the articles to be so entitled*. On this point and on the general question it would be well that all sections of the drug-trade should keep in mind that the provisions which we are discussing have not emanated from the Commissioners but from the Chancellor of the Exchequer, or have been adopted by him with the approval, willingly or otherwise, of the Commissioners. We must also add that in official circles it is considered that the fact of charging the additional duty on spirits earmarked for medical and pharmaceutical purposes with the cognisance that such additional duty will be repaid stamps the procedure as a clumsy and expensive one. If manufacturing chemists and other exempted persons are charged the additional duty, stocks will have to be taken account of at each premises by the local Excise officer and certificates granted of the number of proof gals. received before the rebate can be granted. Both from the revenue and commercial points of view this procedure cannot be regarded as satisfactory. It is felt in certain quarters that the provision in Clause 2 (a) already quoted, although restricted to imported mixtures, etc., might be made to cover rectified spirits used for the purposes of Sub-clause (b). However this may be, it is felt that matters will be left practically *in statu quo*, and that the trade will not be put to the trouble of continually having to pay additional duties and to claim repayment of same. On the other hand, the present position is peculiarly anomalous so far as wholesale drug-houses are concerned. They are now practically unanimous in charging spirituous medicinal preparations at the old prices, anticipating that they will get a rebate of the surtax. Thus they will be out of pocket in respect to this until the Commissioners formulate regulations and determine what articles will be entitled to the rebate. In the meantime, therefore, old prices are solely *ex gratia* on the wholesalers' part, and under any circumstances may not be

universally binding, seeing that the Commissioners have the power to exclude articles, even though pharmacopœial, from the rebate. It is important that retailers should keep this in mind, as ultimately they can be called upon to pay the full duty.

The New Cabinet.

THE British Government has been re-constituted, the King having given his sanction on Tuesday evening to the following appointments to the Cabinet:

Prime Minister and First Lord of the Treasury	Mr. Asquith.
Minister without portfolio	Lord Lansdowne.
Lord Chancellor	Sir S. Buckmaster
Lord President of the Council	Lord Crewe
Lord Privy Seal	Lord Curzon
Chancellor of the Exchequer	Mr. McKenna.
Secretaries of State:	
Home Affairs	Sir J. Simon.
Foreign Affairs	Sir E. Grey
Colonies	Mr. Bonar Law
India	Mr. Chamberlain.
War	Lord Kitchener.
Minister of Munitions	Mr. Lloyd George.
First Lord of the Admiralty	Mr. Balfour
President of the Board of Trade	Mr. Runciman.
President of the Local Government Board	Mr. Long.
Chancellor of the Duchy of Lancaster	Mr. Churchill.
Chief Secretary for Ireland	Mr. Birrell.
Secretary for Scotland	Mr. McKinnon Wood.
President of the Board of Agriculture	Lord Selborne.
First Commissioner of Works	Mr. Harcourt.
President of the Board of Education	Mr. Henderson.
Attorney-General	Sir E. Carson.

The Cabinet so formed is the largest of modern times, and consists of twelve Liberals, eight Unionists, one Labour member, and the man with no politics, Lord Kitchener. A Coalition Government was necessary because latterly the proposals of the Liberal Government (*e.g.*, the first Budget and the Immature Spirits Bill) did not meet with approval, and thus became contentious business, which, it is agreed, should not be proceeded with during the war. This meant a very great waste of time to the Ministers and permanent officials, as well as disconcerting to the country, and these objections will be avoided by the representatives of all parties agreeing before proposals are made public. The retiring Ministers are: Lord Haldane, who held the Woolsack; Mr. J. A. Pease, who was President of the Board of Education; Lord Emmott, First Commissioner of Works; Lord Beauchamp, President of the Council; Mr. Herbert Samuel, President of the Local Government Board; and Mr. E. S. Montagu, who was Chancellor of the Duchy of Lancaster. The latter two take other offices. The changes have a certain direct significance to pharmacy and the drug-trade. Mr. Lloyd George will no longer have charge of the Finance Bills now before the House of Commons, and, as explained in a previous note, it was he who insisted upon the rebate of the surtax on rectified spirit used for making medicines. Mr. McKenna now takes his place, and a sharp lookout will be kept on Clause 2 of the No. 2 Bill, for it cannot be expected that Mr. Lloyd George will have any time to spare to look after his fledgling. Perhaps the most momentous change that has been brought about by the Coalition is in the administration of the National Insurance Act, Mr. Winston Churchill taking Mr. Montagu's place as Chancellor of the Duchy, and, it is expected, as head of the Insurance Commission. We hope for the best in this matter.

Industrial Research.

THE announcement made last week by the President of the Board of Education (see *C. & D.*, May 22, pp. 77-78), that the Government is to proceed at once to appoint an Advisory Council on Industrial Research, should have important and far-reaching results on the scientific development of industries in this country. It is interesting also to find that, despite the inconsistent and often petulant demands of rival sections of scientists, the Government has been able to arrive at a scheme calculated to benefit all parties. The Advisory Council is to receive substantial grants of public money, and is described as a Committee of experts which will be able to consult other expert Committees working in different directions and associated with leaders of industry. The Advisory Council will then advise the Government as to the direction in which grants for research should be made. In the course of the debate in the House of Commons, Mr. Pease, as President, mentioned that since the commencement of the war much useful work has been done in overcoming difficulties which were encountered in manufacturing goods previously obtained from Germany, and some notable successes have been achieved. For many months we have chronicled the introduction of new industries connected with the supply of chemicals, and already in the aggregate much has been done to render this country less dependent in future on Germany. The organisation now being created by the Government cannot fail further to increase the stability of the newly established industries. What the country's enemies think of British accomplishments can be gathered from a speech by Professor Grossmann to a Berlin industrial society, to the members of which he uttered a warning against undervaluing British chemical-industry. According to the Professor, many branches of British industry closely related to the dye industry are not inferior to the similar industries in Germany, and such manufactories have the advantage that they have no difficulty in regard to the supply of raw material. For many of these industries the influence of the war has been not unfavourable. The British fat, oil, and soap industries surpass those German industries of a similar nature. Professor Grossmann said that it is a matter of the highest importance to Germany to study carefully the development of the British chemical-industry during the war. The change of tone is noticeable; up till recently the idea of advancement in British chemical-industry was the subject of jeering comments in Germany. Sir William Ramsay has communicated to "Nature" a draft scheme of a "Chemical Council of State." He contends that chemistry lies at the basis of practically all manufactures, and that inducements should be offered to men to take up chemical research. The Chemical Council, he suggests, should consist of about twenty four members, a third of the members being respectively technical chemists, scientific investigators, and analytical chemists. The duties of the Council would be:

(a) To ascertain from every chemical-factory in the kingdom (1) the nature of its raw material; (2) the nature and amount of its finished products; (3) the nature of its by-products and what becomes of them. Also to learn by inquiry of the purchasers and users of chemical products—(1) what articles they obtain from home manufacturers; (2) what articles they purchase from abroad; and (3) the causes which induce them to encourage foreign rather than home industries.

(b) To establish connection with the chemical laboratories of universities and colleges, and to bring chemical researchers into contact with manufacturers, so that the latter should indicate to the former what problems await solution,

and the former should keep the latter posted in any discoveries which appear to promise to be of technical value.

(c) To advise the Government on questions involving a skilled knowledge of chemistry and its applications.

Sir William urges that the young men engaged in the chemical-industry must be better remunerated, so as to make the career attractive to the best brains of the country. It seems to us that the Government scheme of an Advisory Council embodies the best features of Sir William Ramsay's plan. Anyway, whatever the body may be called, it should be one in which all scientists can combine to work for the good of the State. The work which Lord Moulton has recently done to conserve certain branches of the chemical-industry was good, although its brilliance suffered from the political miasma which enshrouded most honest effort for improvement in the early months of the war. This week the country has realised that it is not strong enough to continue party pranks of that kind, and now it is to be hoped that all are for the State. Lord Moulton would rank as a mathematician, physicist, and lawyer rather than as a chemist, yet any Advisory Council in regard to technical research would be singularly incomplete without him. Moreover, in the consideration of such a Council the engineering and textile industries will be paramount, and with them mechanical rather than chemical considerations.

Italian Produce.

THE entry of Italy into the European conflict invests the produce obtainable from that country with more than usual interest at the present time. Quite a number of important chemical and pharmaceutical articles are obtained from Italy, including sulphur, orris-root, castor oil, juniper berries and oil, olive oil, the essential oils of lemon, bergamot, orange, and mandarin, borax, boric acid, cream of tartar, tartaric acid, and the raw materials for their manufacture, such as wine-ices, argol, and crude tartar, citric acid and calcium citrate, almonds, liquorice-juice, squill, manna, lemon juice and peel, sumach, beeswax, honey, Castile soap, talc, soap-stone, and milk-sugar. Among these products those of primary importance are the "Messina essences"—lemon, bergamot, and orange oils—which are produced in Sicily and Calabria. The future market development of these oils is quite uncertain, however, as several factors have to be considered, the most prominent of which is that, as a result of the prolonged negotiations between Italy and Austria-Hungary, most buyers and consumers in this country have taken precautions to lay in stocks of these oils. This may be gathered from the fact that unusually large arrivals (especially of lemon oil) have been received from Sicily during the past month or six weeks, and everybody has had ample warning. It is not yet known whether direct steamship communication with Italian ports will cease, but Sicily, being between 600 and 700 miles from the war-zone, should not be directly affected. We may now expect the additional prohibition of certain Italian exports. We have already announced that sulphur shipments have been prohibited and that the price has advanced. As we are dependent on Italy for our supplies of sulphur, no doubt the requirements for the British Government will be a matter for negotiation. The cessation of shipments should bring the Louisiana sulphur into the European markets once again. Castor and olive oils are likely to be placed on the list of prohibited exports, and so far as Italian make is concerned these will be dearer. Since the war much larger supplies of tartaric acid have been received from Bari,

where some of the Italian factories are situated, but future supplies from this port may be in jeopardy. Genoa, which has served as a "back door" for the outlet of German goods, is about 120 miles from the opening of hostilities with Austria, and may easily be involved in the land operations, while the danger to the ports of Leghorn and Naples is more remote. Swiss supplies of fine chemicals were regularly being received through Genoa, but we may take it that this outlet will now be barred. The projected bombardment of the Austrian port of Trieste by the Allies recalls the fact that formerly this was the chief outlet for crude drugs from Austria-Hungary and some of the Balkan States, but any shipments from these sources since the war began have been made *via* Rotterdam. This having been a holiday week, the full effect of the declaration of war has not been felt on the produce markets, and some time may yet elapse before developments take place. Two items, however—tartaric acid and cream of tartar—which were already rising markets, have now sharply advanced by $\frac{1}{2}$ d. per lb. and 7s. 6d. to 10s. per cwt. respectively, and as both these products are scarce on the spot, and in good demand, the prospects are for still higher rates. At the close the market for Messina essences has not been affected for the reasons mentioned above. Buyers should, however, be well covered, as a sudden big demand coupled with a spell of fine weather may easily reduce stocks of lemon oil, the replenishment of which may be difficult if shipping facilities are restricted.

Since the above was written there has been a further advance in cream of tartar.

How Chemists May Get S.V.R.

UNDER Mr. Glyn-Jones's amendment in the Immature Spirits Act medical practitioners, hospitals, and persons, firms, and bodies corporate entitled to carry on the business of a chemist and druggist are authorised to obtain rectified spirit before it is warehoused for the periods prescribed for spirits by the Act. James Burrough, Ltd., inform us that under the regulations made by the Commissioners of Customs and Excise for carrying out the Act, a requisition-note must be forwarded to the rectifier or distiller from whom the rectified spirit is ordered. A book of these forms can be obtained on application to the Customs and Excise officer of any district.

Loss of Treasury Notes in the Post.

WE observe that bank managers are issuing strong warnings to their clients not to send Treasury notes through the post except in registered envelopes. Since these notes have come into general circulation a large number of unregistered packets in which they have been enclosed have "gone astray." To keep a record of the numbers on the notes is no safeguard, for they are, of course, as easily negotiable as coins. They cannot be "crossed" for payment through a bank only, and those who wish to avoid registering every small sum they send by post should turn the notes into postal orders and cross the postal orders before despatching them. Our own office has experience of such losses as are referred to, and the following is a statement which has been issued from our cashier's department for some time past:

In view of the fact that several complaints have reached us recently with regard to sending paper money by post, we should like to point out that in forwarding remittances a cheque payable to THE CHEMIST AND DRUGGIST and crossed "Martin's Bank, Ltd.," is the safest method.

If postal orders are sent, the sender should be careful to keep the counterfoil for reference, and to cross the order "Martin's Bank, Ltd."

Under present circumstances it is apparently unsafe to send Treasury notes by post, unless in a registered letter.

Association in Pharmacy.

By Arthur H. Jenkin.

"PHARMACY, the handmaid of medicine," is a phrase that has been badly misconstrued. It is one of the first indications that local Association work is conducted on right lines when a *rapprochement* between the doctors and chemists of a neighbourhood is secured. If pharmacy is to take its proper place, such a result must be aimed at, and until it is attained your local Association is but a partial success. In this connection it is reasonable to assume that what has been done in individual cases could be extended with some probability of success to the general advantage.

Doctors, whether we like it or no, have a great power in influencing our business, either for good or ill; the man who can secure their good will is the man who is going to build up a successful business. Here I use the plural purposely, for it is a very poor sort of success that succeeds with one doctor and by so doing alienates another. The poor-spirited individual who allows himself to become the tool of any one medical man—by attempting, for instance, to corner his N.H.I. work, filling his special formulas of which he alone has copies, doing any and every kind of rep. mist. he sends along, in the hope of obtaining some brother pharmacist's legitimate work—is not only injuring his brother pharmacist financially, but bringing his profession into disrepute; which is at once a moral loss to himself and a shortsighted policy, ensuring, if not present, yet certain future, disaster. It has too much about it of putting all the eggs into one basket to hold out any reasonable hope of permanence.

We must therefore analyse the situation, applying our research to as much as we can learn of the doctors' point of view as to what we know of our own. About the first thing we find is the impression, not altogether unjustified, of an illegitimate competition between the two branches of the medical profession; on the one hand dispensing by the doctor, on the other prescribing by the pharmacist. Is there no *via media* by which to come to an understanding?

In various ways the pharmacists of a neighbourhood in agreement first with each other, then by associated action with the doctors, could specialise for the supply of medical requirements which are in line with the pharmacists' legitimate province. One man, the F.S.M.C. of the district, would act for all, or on the doctors' behalf, in supplying the optical instruments wanted; another would specialise in vaccines and serums; a third in surgical instruments and appliances, even to the extent of a stock of special instruments for loan to the doctors at appropriate charge; by him all forms of sterilisation would be undertaken. A fourth would certainly find his part in providing accommodation and the necessary apparatus for x-ray work, and even for high-frequency treatment, electric baths, cauteries, etc., if such were in demand. A fifth by his attention to the analysis of urine, sputum, etc., and if possessed also of the ability to stain and mount microscopic specimens, should soon have a connection that no ordinary opposition could wrest from him. There is not enough room for opposition to work of this nature, if carried out conscientiously; and although at first the growth of confidence between the practitioners and the pharmacists may be slow, once it begins nothing but sheer folly on one side or the other will stop it. The voluntary method of procedure in this matter is the only feasible way, and is worth in pounds, shillings, and pence all the protective Acts of Parliament put together.

But carry the idea of association even a little further. In quite a circumscribed area you will find a number of shops carrying stocks of little-used medicines bought for one reason or other: because one drachm was wanted out of the only obtainable size of a proprietary; because one customer, who has ceased using it, wanted a few grains now and again; because a hospital in the neighbourhood once sent for some in a hurry, and telephone and errand-boy were set to work to obtain a stock,

which has never been touched since: all these and many other reasons account for what must amount in the aggregate to hundreds of pounds' worth of dead stock, some portion of which an association of pharmacists acting on rational lines could utilise.

The unassociated, self-centred idea has taken such a deep root among the individual members of the craft that it took a Lloyd George to shake them into even a semblance of association; it is therefore rather difficult to prognosticate the extent of the cataclysm that will ultimately move them to abandon once and for all the ridiculously independent attitude taken up in despite of their trade and professional interests, and by a truly associated effort shake off the inertia that has slowed the pharmaceutical machinery down to near stopping-point in the last quarter of a century.

Association Affairs.

Cardiff.—A meeting of the Cardiff Pharmaceutical Association was held at the Angel Hotel on May 18, Mr. Eason (President) in the chair. The Hon. Secretary read a letter from Mr. Allen, Barry, regarding the small amount of profit on Pears' soap, also letters from the local Guardians. It was decided to defer the annual picnic until the termination of the war. Mr. Hagon, as Chairman of the Pharmaceutical Committee, reported on insurance matters. He referred to the circular which has been received by all chemists, in which it is stated that it will not be safe for the Insurance Committee to rely on receiving in respect of 1915 credit for more than 80 per cent. of the amount available in 1913. Mr. Hagon said things do not look too rosy for the chemists in Cardiff. In January 100 per cent. of the chemists' accounts were paid; in February, 90 per cent.; in March, only 66½ per cent. The amount of the accounts for the three months was 1,471l.—January, 495l.; February, 503l.; March, 473l. The income for the same period was 1,067l. Continuing, Mr. Hagon said the matter is more serious than it appears, because the cost of drugs was 1,000l. less in the three months of 1915 than in the corresponding quarter of 1914, due to the fact that doctors are more moderate in their requirements and prescriptions are of less value and fewer in number. He also mentioned that the Pharmaceutical Committee is unable to see any way out of the difficulty. The attention of doctors has been called to the amount of dispensing, and the bills have diminished since then. He added that chemists are to receive 90 per cent. of their accounts for the present month.

Hartlepool.—The annual general meeting of the Hartlepool Pharmacists' Association was held at the Oddfellows' Hall, York Road, West Hartlepool, on May 20, Alderman T. Clarkson presiding. There were also present seven members and Mr. A. Timmins (Hon. Secretary). The Secretary, in his annual report, reviewed the events of the past year. Referring to insurance matters, the Secretary stated that it had been impossible as yet to give the members any information regarding the position of the Insurance accounts for 1914 as the Insurance Committee has not received notification from the Commissioners as to the amount placed to its credit. The report was adopted and a cordial vote of thanks accorded to the Secretary for his services. The question as to the desirability of establishing *Earlier Closing* was next discussed, and it was agreed that the closing-hours for the future should be as follows: Mondays, 7.30 p.m.; Tuesdays, 7.30 p.m.; Wednesdays, close 1 p.m., reopen 6 to 7.30 p.m.; Thursdays, 7.30 p.m.; Fridays, 8 p.m.; Saturdays, 10 p.m. The Treasurer presented the balance-sheet which was accepted. The officers were re-elected as follows: Alderman T. Clarkson, President; Mr. Leithhead, Vice-President; and Mr. Timmins, Secretary and Treasurer. The following were elected the Committee: Messrs. Gamlen, Gibson, Pattison, Barker, and Harding.

London.—Mr. Edmund White presided at a meeting of the Executive Committee of the County Pharmaceutical Association held at 16 Bloomsbury Square on May 25. It was agreed to ask the West Ham Association to nominate representatives as members of the Joint Committee appointed on the question of profit on proprietary goods. A report was submitted as to a "Chemists' Union," and it was generally considered that the present organisation should be perfected so as to remove grievances alleged to exist, also steps should be taken to stimulate the action of the Local Associations Executive in trade matters. On the motion of Mr. Milner, seconded by Mr. Skinner, it was resolved:

That the London County Pharmaceutical Association, through its branches, does hereby pledge itself to work definitely to bring about the undermentioned reforms, and such reforms to be the main propaganda for 1915 and 1916:

(a) The abolition of the discounting clause in the Insurance dispensing contract and the establishment of definite dates for payment of accounts.

(b) The reduction of hours of business, where necessary, and recommending that the latest hours of closing in any district shall be Monday, Tuesday, and Wednesday, 9 p.m.; Thursday, 1 p.m.; Friday, 9.30 p.m.; and Saturday, 10.30 p.m.

(c) The abolition in all pharmacies of the practice of opening stamped boxes of proprietary pills and retailing them in small quantities.

(d) A minimum profit of 25 per cent. on selling-price of all patent medicines, perfumes, and toilet-soaps.

(e) A minimum profit of 20 per cent. on selling-price of all infant foods.

(f) The absolute refusal to stock or sell any proprietary article advertised to the public by means of a prescription, or of which the retail price is unstated.

It was decided to submit this resolution to the Local Associations Executive, together with special reference to "broken bulk." Item (b) was referred to the Organisation Sub-Committee for consideration. The whole resolution is also to be sent to sub-district officers and to each pharmacist in business in the county. It is proposed to issue a letter to all members of Associations and London wholesale houses concerning the formation by pharmacists of sanitary and other sections. Mr. Gilbert Jones was appointed Hon. Auditor to examine the Committee's accounts for 1914-15.

P.A.T.A. of South Africa.—Mr. R. Kemp has been appointed Secretary in place of Mr. Blake Jardine, who resigned recently. Mr. Kemp has had a great deal of organising work to do, and will be an acquisition to the Association. Any communications connected with P.A.T.A. matters may be addressed to Mr. Kemp, P.O. Box 280, Cape Town.

Sunderland.—In the report of Mr. Forster's paper on *Syrupus Ferri Phosphatis Compositus*, B.P.C. (C. & D., May 22, p. 97), the quantity of acid. phosph. conc., in the liq. calcii, pot. et sod. phosph. c. aq. aurant., should read 25 oz. 7 dr. 6 m. Mr. Forster also points out that the liq. ferri phosph. keeps perfectly when stored in full, well-corked bottles.

Doing the Rest for Amateurs.

Practical hints by G. A. Slight on the photographic-development business, how to work it, and to make it pay.

MANY chemists have a *cûentèle* among amateur photographers sufficiently large to warrant some further attempt to extend their operations in this direction. I do not know how, in a small way, this work of developing, printing, etc., for amateurs is made to pay except by putting in one's labour as *nil*, which is, of course, absurd. But some chemists do enough to make the addition to the staff of at least one operator a necessity. For a few years the writer managed a department of the kind where 100 was the average number of spools developed per day. This, of course, in addition to printing, copying, and enlarging work, lantern-slides, etc., premises quite safely that various items of work of this kind do not even at this time of day get into the hands of professional photographers—of the usual portrait variety. Spools would come in by every post, accompanied mostly by remittances—a most important consideration. "Your spool developed and returned post free for so much; 6 exp. or 12 exp. —; cash with order." If one has to write for the money the work is interminable.

"All orders for developing spools received by midday are developed the same day, and returned by post on the day following, provided remittance is sent with order."

That is the idea. Each order was opened, and a work-room ticket filled in and put round the spool, bearing the number and name. After dinner-time all these were taken to the dark-room, and two girls took them in hand; one opened the package and read out name and number, while the other wrote this upon one end of the film. The films were then placed, rolled up again, in a light-proof box, and kept closely covered until all were ready for developing. Ordinarily two girls could develop the day's import—fifty—easily, but in the season over 100 frequently came in, when possibly other help was necessary. Specially built developing-trays were provided,

roughly 54 in. by 12 in., and 6 in. deep, built and dove-tailed, etc., to hold water, and well varnished. We discarded glass-bottomed trays on account of the weight. A large washing-tank, lead-lined, and, of course, a fixture, is indispensable, as also a good supply of water, the softer the better. We used two such tanks for washing, but two of the long wood trays did very well for developing and fixing, the latter being marked and religiously kept apart. These trays were every day rinsed out and wiped with a damp washleather, and set up on end to dry. Girls can handle such trays easily.

For development the solutions have to be made by the gallon. A developer of standard quality, which will not discolour quickly, one which may be relied upon to bring out all detail if any exposure has been given—which, as we know, is not always the case. The girls stood one on each side of the trough, which would contain developer to a depth of, say, two or three inches. One operator took a spool from the box, unrolled it, and handed it to the second, whose duty was primarily to keep the films well covered and unrolled. Very soon after starting, the development carefully watched, would proceed in earnest and rapidly, and some of the first would be ready for fixing, and later on for washing. The quantity of developer would, of course, depend on the number of spools, but we always commenced with a comparatively small bulk, adding to it every few minutes a pint or so for each ten or thereabouts; also now and then some of the old exhausted solution would be poured off before adding fresh. As a rule, developed spools may remain in plain water unfixed for some time, but this must not be relied upon entirely. Sundry weird markings and over-density result from forgetfulness to see that the film has been really freed from developer—i.e., the water must be changed several times, and the films not lost sight of in the pressure of other work. Naturally, the operations being practically continuations one of another, one of the girls would be looking after this when the other had her hands in the developing-tank. Accidents were very rare; the girls kept their finger-nails short, occasionally wore rubber gloves, and had perforce to be careful.

Fixing and washing occupied nearly two hours; drying the spools was a difficulty until we fixed up a long and draughty (the *raison d'être*) corridor. By seven o'clock every spool would be hanging there, and certain to be dry by the morning.

The sorting-out, cutting-up, packing into envelopes, writing name, etc., in connection with films occupied the first two hours of the morning. The bulk were ready for an early midday post. The remainder, picked out first, if possible, would by this time be in the hands of the printing department. Two of the staff would have had frames out from the beginning, and of course a good many prints ready by noon. Regarding the matter of printing, it is frequently much more convenient to supply gaslight prints: the satisfaction of getting the work out quickly compensates for any extra cost, which would be not much anyway. Ordinarily it will require a well-trained staff to deal with P.O.P.s in the bulk; the waste may be very serious also. In my experience I found the girls to enjoy a change of work occasionally from printing to developing, and the reverse, and of course this at times was very necessary, as the pressure of orders on the one side or the other continually varied. Toning and fixing, washing, squeegeeing on to ferro-type plates, etc., occupied at least three hours of the latter part of the day, and in the mornings the sorting, trimming, and packing (after inspection) of prints took almost as long.

For a season I had an electric fan, and used it very successfully for quickly drying prints. I fixed up long racks taking four layers of ferro-types, sixty or so at a time. The fan was fixed near one end, and after about twenty minutes' running the prints were flying off in all directions. By having one operator to print, and another to tone, fix, and wash, and using a combined bath, several hundreds of prints could be done in a day, but steady unflagging work was essential.

Copying and enlarging were not so heavy a department, and the one operator whose duty it was to take this branch was usually free to help in one of the other departments. Now and then there would be an order for a gross of postcards, G.L. or bromide, then this operator required some help in her turn. The manager, in addition to practically all the clerical business, had to turn his hand to all sorts of work, and I may say that during a period of about two years, every bit of experience that had fallen to my lot—copying, enlarging, bromides and negatives, platinotype, gaslight of all sorts, toning of all sorts, cloud-printing, blocking out skies and some retouching, carbon work, single and double transfer, lantern-slides and transparencies, and photo-micrographic—came in most usefully.

I don't know how photographers get on who have no education in chemistry, or at least photographic chemistry; but I suppose the fact is they don't get on, but simply let things slide. At the same time, one's chemical knowledge is of little purpose now and then, as when an epidemic of blisters appeared on the bromides. I have never been able to discover any use for a blistered enlargement or print, nor any method of restoring the *status quo* absolutely. A dozen or so of postcards is all very well, but try a gross, and it is a different proposition.

I have had no experience of smaller quantities than referred to above. How chemists manage, doing everything themselves, I do not know; it must be a dog's life! For various reasons I cannot give actual figures regarding costs and returns. One hundred spools at 8d. (averaged up) = 3l. 6s. 8d., and the cost of developer would not be more than a halfpenny per spool. Printing is profitable work, but unless the operators are reasonably expert the waste may be considerable. Similar remarks apply, of course, to bromide enlarging and other work; in fact, cheap labour may cost one dearly. If any chemist can see his way to a few dozens of spools daily—by advertisement or canvassing his neighbours—there is money in it, a cash-down principle being essential. Also much trouble is saved if one's name is not prominent. How much time is wasted in talk at the counter when one professes to be the actual operator! "This is not my spool, Mr. Blank," says one lady customer presenting a No. 1 Brownie spool—fogged from end to end! It was certainly by no means what she expected, but with carelessly exposed and rewound spools anything is possible.

Veterinary Notes.

By a M.R.C.V.S.

Dog-diseases.

IMPACTION of the stomach of the dog is very common, and leads to various other diseases, such as gastritis, etc. It is caused by improper food and feeding, eating of bones, rabbit-skins, decomposed rubbish, etc. Cases occur where the animal tries to throw off the offending matter by vomiting, and this effort can be assisted by the administration of an emetic. When, however, the animal is suffering from obstinate impaction, accompanied by high fever, hot nose, abdominal pain, constipation, inflamed eyes, and quickened pulse, the case requires immediate and skilful assistance, as very often the condition is due to irritant and corrosive poisons, such as arsenic, antimony, or mercury. The treatment is to give mild emetics, warm baths, fomentations over region of stomach, enemata of glycerin, oil, or soapy water, and allay the gastric irritation by giving hydrocyanic acid and antacids. Move the bowels gently with ol. ricini or magnesia and calomel. Do not give drastic evacuants, but rather trust to enemata. Should the strength of the animal fail at any time, stimulants may be resorted to, but these must be discontinued as quickly as possible, as their prolonged use generally militates against recovery. Light diet should be given, but food should never be forced on the animal.

Indigestion or dyspepsia is another very common disease of the dog. It is practically a perverted assimilation of the food. Simple as the trouble may appear to be, yet

it means much at times, because the disease may develop and lead to serious complications, causing organic and functional changes in various parts of the system, but usually the stomach and bowels. The indigestion is caused by improper and imperfect feeding, impure or contaminated water, decayed teeth, worms, etc. The symptoms are frequent attempts or actual vomiting, offensive breath, dull and languid appearance and disposition, irregular action of the bowels, "usually constipated," and hot and dry skin, which may result in hair falling off. The trouble should be treated by first finding out the cause and then removing it. Give mild aperients and enemata and the following powders:

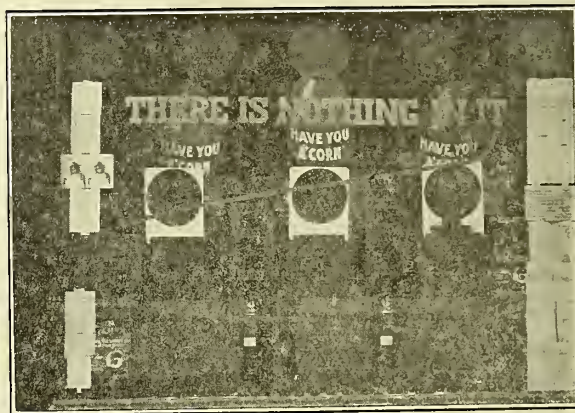
Bismuth. carb.	...	...	...	5j.
Sod. bicarb.	...	...	...	3ij.
Pulv. rhei	...	...	...	gr. xxx.
P. carb. ligni,				
Pepsini	...	...	...	aa. gr. xxv.

Divide into twelve powders. One twice daily before food.

Feed the animal on milk principally, with rice, sago, cornflour, etc., to be followed by small quantities of boiled fish or minced lean meat. The food should be given at regular intervals and in small quantities.

Chemists' Windows.

Photographs of windows sent to the Editor for reproduction should be accompanied by notes on how the displays were arranged.



A Display of One Thing.

Mr. J. Barker, pharmacist and optician, Evington Road Pharmacy, Leicester, writes in regard to the corn-cure display here figured:

"I have always found it difficult to make a single-window display of one article when the goods are contained in small packages, such as corn-cure. Gumming the cartons to supports always takes such a lot of time, besides spoiling so much of the material. Those shown above were made by cutting the sides of the thin tea-chests which the wholesale houses are so fond of sending to me as free packages. There is a 1-in. square piece at the top of each side, which should be left on, so as to make a support for the first layer of cartons; it will also keep the stand rigid when placed in the window. Lay the dummy cartons on the wood tier by tier until it is filled; mark out with pencil, then cut away the outside segments. The cartons can then be easily kept in position by a piece of thread (the same colour as the body of the carton) tied tightly round the cartons and wood. The whole thing can be made in a few minutes without spoiling a single carton. Five or six grouped together in a window make a really fine display. The wording, 'There is nothing in it,' was cut out of chrome-coloured paper, gummed on the window, and a streamer of the same colour connected with a show-card worded, 'Except Golden corn-cure; but there is something in that, as these testimonials quickly prove.' Altogether it was one of the most striking shows I have had. Whether it was that 'There is nothing in it' aroused the curiosity, or the flame-coloured cartons attracted the eye, I cannot say. The circles are supplied by the printers, and have yellow wording on a black background. They are quite cheap."

Insurance Pharmacopœias.

WE continue the comparison of stock-mixture formulæ as given in the local Pharmacopœias, which have been issued by Local Medical Committees and Pharmaceutical Committees in connection with Insurance Act dispensing. The series commenced in the *C. & D.* of January 30, 1915 (p. 142). Each of the formulæ is given in a single dose, and the quantities are in parallel columns to facilitate comparison. Each column is numbered, and the names of the areas with alternative names for the prescriptions are indicated by the numbers.

	1	2	3	4	5	6	7	8	9	10	11	12
Potass. bicarb. ...	15 gr.	—	15 gr.	25 gr.	15 gr.	10 gr.	10 gr.	12 gr.	10 gr.	10 gr.	15 gr.	7½ gr.
Sodii bicarb. ...	—	15 gr.	15 gr.	25 gr.	15 gr.	10 gr.	10 gr.	12 gr.	10 gr.	10 gr.	15 gr.	7½ gr.
Ammon. carb. ...	—	3 gr.	—	—	—	—	—	—	3 gr.	5 gr.	—	2½ gr.
Mag. carb. pond. ...	—	—	—	25 gr.	—	—	—	—	—	—	—	—
Pulv. rhei ...	—	—	—	—	—	—	5 gr.	—	—	—	—	—
Tr. capsici ...	—	—	1 m.	—	—	—	—	—	—	—	—	—
Ac. carbol. liq. ...	—	—	—	2 m.	—	—	—	—	—	—	—	—
Tr. nucis vom. ...	—	—	—	—	—	—	—	5 m.	—	—	—	—
Chloroformi ...	—	—	1 m.	—	—	—	—	—	—	—	—	—
Spt. ammon. arom. ...	—	—	—	—	30 m.	—	—	7½ m.	—	—	—	—
Tr. zingib. ...	—	—	—	—	—	—	—	—	20 m.	—	—	—
Aq. menth. pip. ...	to 1 oz.	—	—	½ oz.	—	—	1 oz.	—	—	—	—	—
Inf. gent. co. ...	—	—	*30 m.	—	—	—	½ oz.	—	½ oz.	—	180 m.	—
Inf. gent. co. ...	to —	½ oz.	—	—	½ oz.	½ oz.	—	—	—	½ oz.	—	½ oz.
Aq. chlorof. ...	to —	—	½ oz.	—	—	—	—	½ oz.	1 oz.	—	—	—
Aq. ...	to —	—	—	—	—	—	—	—	—	—	½ oz.	—

1, Birmingham; 2, Bournemouth (Mist. gent. alk.); 3, Bradford (Mist. gent. alk.); 4, Doncaster; 5, Dorset (Mist. gentian. c. soda); 6, Gateshead (Mist. gentianæ alk.); 7, Gosport (Mist. gent. alk.); 8, Hull (Mist. nucis vom. alkalina); 9, Leicestershire (Mist. sodæ c. ammonia); 10, Liverpool (Mist. alkalina amara); 11, Sheffield (Mist. gentianæ comp.); 12, West Hartlepool (Mist. gent. alk.). * Conc. 1 to 7.

	1	2	3	4	5	6	7	8	9	10	11
Bism. carb. ...	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	3½ gr.	7½ gr.
Sodii bicarb. ...	10 gr.	10 gr.	—	15 gr.	—	5 gr.	10 gr.	10 gr.	15 gr.	10 gr.	7½ gr.
Magnes. carb. ...	—	—	—	—	15 gr.	5 gr.	—	—	—	*15 gr.	—
Pulv. tragac. co. ...	—	—	—	—	10 gr.	—	—	—	—	—	—
Tr. zingib. ...	—	—	—	10 m.	—	—	—	—	—	—	—
Tr. calumbæ ...	—	—	—	—	10 m.	—	—	—	—	—	—
Spt. ammon. arom. ...	—	—	—	—	—	—	15 m.	—	—	—	—
Mucil. tragac. ...	—	—	30 m.	30 m.	—	10 m.	—	—	q.s.	—	—
Chloroformi ...	—	—	—	—	—	—	—	—	—	½ m.	—
Aq. chlorof. ...	to 1 oz.	½ oz.	—	—	½ oz.	—	½ oz.	—	½ oz.	—	½ oz.
Aq. menth. pip. ...	to —	—	½ oz.	—	—	—	—	—	—	—	—
Aq. cinnam. ...	to —	—	—	½ oz.	—	—	—	—	—	—	—
Aq. carui ...	to —	—	—	—	—	1 oz.	—	—	—	—	—
Aq. camph. ...	to —	—	—	—	—	—	—	1 oz.	—	—	—
Aq. ...	to —	—	—	—	—	—	—	—	—	½ oz.	—

1, Birmingham; 2, Bournemouth (Mist. bismuth. c. soda); 3, Bradford; 4, Bradford (Mist. bismuth. alk.); 5, Dorset (Mist. bismuth. carb.); 6, Gosport; 7, Hull (Mist. bismuthi comp.); 8, Leicestershire; 9, Liverpool (Mist. bismuthi alkalina); 10, Sheffield; 11, West Hartlepool (Mist. bismuthi carb.). * Pond.

	1	2	3
Bism. carb. ...	10 gr.	10 gr.	3½ gr.
Sodii bicarb. ...	10 gr.	10 gr.	—
Salol ...	8 gr.	5 gr.	3 gr.
Pulv. tragac. co. ...	—	5 gr.	3½ gr.
Ol. caryoph. ...	—	—	½ m.
Chloroformi ...	—	—	½ m.
Mucil. acacæ ...	1 dr.	—	—
Aq. chlorof. ...	to 1 oz.	—	½ oz.
Aq. ...	to —	½ oz.	—

1, Birmingham; 2, Bournemouth; 3, Sheffield.

	1	2	3
Bism. cit. ...	5 gr.	—	—
Liq. ammon. ...	q.s.	—	—
Liq. bismuthi ...	—	1 dr.	20 m.
Tr. nucis vom. ...	7½ m.	5 m.	—
Ext. nucis vom. liq. ...	—	—	1 m.
Chloroformi ...	—	—	½ m.
Acid. hydrocyan. dil. ...	½ m.	2 m.	—
Liq. carmini ...	½ m.	1 m.	*3½ gr.
Pepsin. ...	1 gr.	1 gr.	1 gr.
Glycerin. ...	—	—	30 m.
Aq. chlorof. ...	to —	½ oz.	—
Aq. ...	to 1 dr.	—	½ oz.

1, Bournemouth; 2, Bradford; 3, Sheffield. * R.P.C.

	1	2	3	4
Potass. brom. ...	5 gr.	5 gr.	7 gr.	10 gr.
Sodii brom. ...	5 gr.	5 gr.	7 gr.	5 gr.
Ammon. brom. ...	5 gr.	5 gr.	7 gr.	5 gr.
Spt. ammon. arom. ...	—	—	5 m.	—
Syr. aurant. ...	—	—	30 m.	—
Inf. gent. co. ...	to —	—	—	½ oz.
Aq. camph. ...	to —	—	½ oz.	—
Aq. chlorof. ...	to 1 oz.	½ oz.	—	—

1, Birmingham; 2, Bournemouth (Mist. bromidi co.); 3, Bradford (Mist. bromid. co.); 4, Hull (Mist. bromidi co.) and West Hartlepool (Mist. bromid. co.).

	1	2	3	4
Bismuth. carb. ...	—	—	—	10 gr.
Liq. bism. et amm. cit. ...	60 m.	—	—	—
Sodii bicarb. ...	10 gr.	—	—	10 gr.
Bism. cit. ...	—	5 gr.	5 gr.	—
Liq. ammoniæ ...	—	q.s.	q.s.	—
Morph. hydroch. ...	—	—	320 gr.	—
Spt. ammon. arom. ...	—	—	—	15 m.
Chloroformi ...	—	½ m.	½ m.	—
Acid. hydrocyan. dil. ...	3 m.	2 m.	2 m.	—
Liq. carmini ...	—	½ m.	½ m.	—
Tr. nucis vom. ...	—	7½ m.	7½ m.	—
Aq. chlorof. ...	to 1 oz.	—	—	½ oz.
Aq. ...	to 1 dr.	1 dr.	1 dr.	—

1, Birmingham (Mist. bismuthi et acid. hydrocyan.); 2, Bournemouth; 3, Dorset (Mist. bismuthi co. c. morphina); 4, Hull.

	1	2	3	4	5	6	7	8	9	10	11	12
Potass. bicarb. ...	15 gr.	—	15 gr.	25 gr.	15 gr.	10 gr.	10 gr.	12 gr.	10 gr.	10 gr.	15 gr.	7½ gr.
Sodii bicarb. ...	—	15 gr.	15 gr.	25 gr.	15 gr.	10 gr.	10 gr.	12 gr.	10 gr.	10 gr.	15 gr.	7½ gr.
Ammon. carb. ...	—	3 gr.	—	—	—	—	—	—	3 gr.	5 gr.	—	2½ gr.
Mag. carb. pond. ...	—	—	—	25 gr.	—	—	—	—	—	—	—	—
Pulv. rhei ...	—	—	—	—	—	—	5 gr.	—	—	—	—	—
Tr. capsici ...	—	—	1 m.	—	—	—	—	—	—	—	—	—
Ac. carbol. liq. ...	—	—	—	2 m.	—	—	—	—	—	—	—	—
Tr. nucis vom. ...	—	—	—	—	—	—	—	5 m.	—	—	—	—
Chloroformi ...	—	—	1 m.	—	—	—	—	—	—	—	—	—
Spt. ammon. arom. ...	—	—	—	—	30 m.	—	—	7½ m.	—	—	—	—
Tr. zingib. ...	—	—	—	—	—	—	—	—	20 m.	—	—	—
Aq. menth. pip. ...	to 1 oz.	—	—	½ oz.	—	—	1 oz.	—	—	—	—	—
Inf. gent. co. ...	—	—	*30 m.	—	—	—	½ oz.	—	½ oz.	—	180 m.	—
Inf. gent. co. ...	to —	½ oz.	—	—	½ oz.	½ oz.	—	—	—	½ oz.	—	½ oz.
Aq. chlorof. ...	to —	—	½ oz.	—	—	—	—	½ oz.	1 oz.	—	—	—
Aq. ...	to —	—	—	—	—	—	—	—	—	—	½ oz.	—

Mist. Bismuthi.

	1	2	3	4	5	6	7	8	9	10	11
Bism. carb. ...	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	10 gr.	7½ gr.
Sodii bicarb. ...	10 gr.	10 gr.	—	15 gr.	—	5 gr.	10 gr.	10 gr.	15 gr.	10 gr.	7½ gr.
Magnes. carb. ...	—	—	—	—	15 gr.	5 gr.	—	—	—	—	—
Pulv. tragac. co. ...	—	—	—	—	10 gr.	—	—	—	—	—	—
Tr. zingib. ...	—	—	—	10 m.	—	—	—	—	—	—	—
Tr. calumbæ ...	—	—	—	—	10 m.	—	—	—	—	—	—
Spt. ammon. arom. ...	—	—	—	—	—	—	15 m.	—	—	—	—
Mucil. tragac. ...	—	—	30 m.	30 m.	—	10 m.	—	—	q.s.	—	—
Chloroformi ...	—	—	—	—	—	—	—	—	—	½ m.	—
Aq. chlorof. ...	to 1 oz.	½ oz.	—	—	½ oz.	—	½ oz.	—	½ oz.	—	½ oz.
Aq. menth. pip. ...	to —	—	½ oz.	—	—	—	—	—	—	—	—
Aq. cinnam. ...	to —	—	—	½ oz.	—	—	—	—	—	—	—
Aq. carui ...	to —	—	—	—	—	1 oz.	—	—	—	—	—
Aq. camph. ...	to —	—	—	—	—	—	—	1 oz.	—	—	—
Aq. ...	to —	—	—	—	—	—	—	—	—	½ oz.	—

1, Birmingham; 2, Bournemouth (Mist. bismuth. c. soda); 3, Bradford; 4, Bradford (Mist. bismuth. alk.); 5, Dorset (Mist. bismuth. carb.); 6, Gosport; 7, Hull (Mist. bismuthi comp.); 8, Leicestershire; 9, Liverpool (Mist. bismuthi alkalina); 10, Sheffield; 11, West Hartlepool (Mist. bismuthi carb.). * Pond.

	1	2	3	4
Potass. bicarb. ...	15 gr.	—	20 gr.	10 gr.
Potass. cit. ...	—	20 gr.	—	10 gr.
Tr. hyoscyami ...	30 m.	15 m.	20 m.	—
Inf. buchu conc. ...	30 m.	—	—	—
Inf. buchu ...	to —	½ oz.	½ oz.	½ oz.
Aq. chlorof. ...	to ½ oz.	—	—	—

1, Bradford (Mist. buchu alk.); 2, Dorset; 3, Hull; 4, Liverpool.

	1	2
Calcii chloridi ...	15 gr.	15 gr.
Ol. limonis ...	—	15 m.
Glycerin. ...	15 m.	—
Inf. quassiae ...	to 1 oz.	—
Aq. ...	to —	½ oz.

1, Birmingham; 2, Sheffield.

	1	2	3	4
Magnes. carb. ...	—	*10 gr.	—	6 gr.
Sodii bicarb. ...	—	15 gr.	10 gr.	10 gr.
Tr. capsici ...	—	1 m.	2 m.	—
Tr. card. co. ...	30 m.	15 m.	20 m.	—
Tr. rhei co. ...	—	—	—	24 m.
Spt. ammon. arom. ...	15 m.	—	—	—
Spt. chlorof. ...	15 m.	—	—	—
Acid. carbol. liq. ...	—	—	2 m.	—
Glycerin. ...	—	—	—	15 m.
Aq. camph. ...	to 1 oz.	—	—	—
Aq. anisi ...	to —	—	1 oz.	1 oz.
Aq. chlorof. ...	to —	—	—	—
Aq. ...	to —	½ oz.	—	—

1, Birmingham; 2, Bradford; 3, Gosport; 4, Leicestershire. * Levis.

	1	2	3
Syr. cascara arom. ...	1 dr.	—	—
Ext. cascara sagrad. liq. ...	—	10 m.	30 m.
Ext. glycyrrh. liq. ...	—	30 m.	—
Spt. ammon. arom. ...	—	20 m.	—
Ext. nucis vom. liq. ...	—	—	½ m.
Aq. chlorof. ...	to —	½ oz.	—
Aq. ...	to 1 oz.	—	½ oz.

1, Birmingham; 2, Dorset; 3, Sheffield (Mist. cascarae sagradae).

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Insurance Dispenser's Notes.

STOCK MIXTURES.

The position of chemists in relation to the Stock-mixture Clause is very clearly defined in the correspondence published in the "British Medical Journal" between the Commissioners and the Croydon Panel Committee. As was pointed out in THE CHEMIST AND DRUGGIST at the time, it rests solely with practitioners whether effect is given to the clause in the Drug Tariff *re* reduced dispensing-fees. Chemists are concerned only with the keeping properties of any stock mixture proposed to be adopted. Fresh infusions alone would debar many mixtures from operation of the clause, and the use of aq. font. in place of aq. dest. may place a further number beyond its possible application; but most good would accrue by co-operation of chemist and practitioner. The propriety of using stock mixtures is very debatable; perhaps rather it admits of no discussion, for the best practitioners are quite against their use. Not infrequently a prescription ordering a stock mixture is evidence of careless diagnosis; be that as it may, the too great facility with which a medicine can be prescribed leads to contempt and disbelief in the efficacy of all medications. Too much care cannot be exercised either in prescribing or dispensing; wholesome respect for medicine induces careful use by the patient and prevents waste, with consequent advantage to the Drug Fund, prescriber, and dispenser.—*Clericus*. (104/71.)

Reports from Local Centres.

With special reference to the supply of medicines and appliances. See also Association Affairs.

ENGLAND.

Croydon.—The Panel Committee, at a recent meeting, decided, in regard to excessive prescribing, that, "failing adequate explanation, the prescription of liniments in greater quantities than 3 oz. at one time would be regarded as the prescribing of an unnecessarily lavish quantity." It was agreed that the responsibility of defence against surcharge should lie on the practitioner concerned in cases where cod-liver oil or malt extract (or emulsions containing these) are prescribed in quantities greater than 1 lb. per week or at one time. Several charges of alleged excessive prescribing were investigated, small surcharges being recommended in some cases, while in others the practitioners concerned were warned.—The Secretary of the Committee has been in correspondence with the Commissioners regarding the operation of the stock-mixture clause, of which the Insurance Committee disapproved (*C. & D.*, February 13, p. 52). The Commissioners' ruling was referred to in our Coloured Supplement last week.

Derby.—The Medical Benefit Sub-Committee reported to the Insurance Committee on May 19 that they had instructed the Clerk to send the report of the special Sub-Committee appointed to inquire into the deficiency on the Drug Fund to the Panel Committee for consideration and report; also to call that Committee's attention to the paragraph dealing with the use of "rep. mist.," intimating that the Sub-Committee, at its next meeting, will consider the advisability of recommending that the use of this form of prescribing be abolished. Dr. Lawrie protested against such abolition on the ground that if a doctor had to write all prescriptions in full, it would take up much valuable time. The report was adopted.

Huntingdonshire.—The applications of the Pharmaceutical Committee for 15*l.* for administrative expenses for the year ending June 30, 1915, and of the Panel Committee for a grant in respect to its proposed expenditure of one-third of the cost of checking prescriptions, were on May 17 passed for approval. It was agreed to allow Mr. C. Gibbons, chemist, Woodstone to terminate his dispensing agreement on September 30, not June 30, as he desired (see also Soke of Peterborough).

Hyde.—A circular-letter, signed by six Hyde chemists—viz., H. Hodkinson, Swindell Bros. (R. Swindells), and Boots Cash Chemists, Ltd., Market Street; Fred. Swindells, Flowery Field; G. F. Wild, Clarendon Place; and the Whalley Drug Co., Ltd.—has been sent to each of the local panel practitioners, drawing their attention to the fact that the use of the formula "Rep. mist." has become a positive evil in the town, and that it throws a large amount of clerical work on the chemists as well as adding to their risk in copying. It is pointed out that it is no part of the chemist's duty to either make up or copy

repeat prescriptions. Practitioners are notified that, by a resolution of the Cheshire Pharmacists' Association, adopted by the Hyde chemists, repeat prescriptions will not be dispensed by any of the chemists or companies whose names are appended to the circular after June 1, but will be given back to the patient for the prescriber to write out in full. Practitioners are also asked to exercise supervision as to the length of time medicines should last, as the excessive frequency of prescriptions constitutes a heavy drain on the Drug Fund. [We are informed that the "Rep. mist." question has become so acute in Hyde that "repeats" average about 60 per cent. of the prescriptions presented.]

Isle of Wight.—The local Medical and Panel Committees have resolved that the checking of prescriptions shall be dealt with locally for the present, and have decided to ask the Drug Sub-Committee to confer with the Pharmacy Sub-Committee as to the cost.

London.—At a special meeting of the Pharmaceutical Committee for the county on Tuesday, May 25, Mr. W. J. Uglov Woolcock was unanimously appointed returning officer for the election of a Pharmaceutical Committee for the year beginning July 14.

Middlesex.—We are asked to inform insurance chemists in Middlesex that accounts should be sent in *not later than the third day of the month* following that for which the account is rendered—not "seven days after the end of the month," as was erroneously reported last week.

Plymouth.—The Medical Benefit Sub-Committee report that the amount available for the payment of chemists' accounts for the first quarter of 1915 is equal to only 55 per cent. of the amounts of the accounts; that the cost of drugs is constantly and largely on the increase; and that, consequent upon the removal of good lives (called upon active service), the Drug Fund is decreasing. The position of the Drug Fund is therefore "now desperate," and it is imperative that the available funds for the payment of chemists should be largely augmented.

Soke of Peterborough.—The Clerk reported to the Insurance Committee on May 19 that the Commissioners had agreed to the appointment of a checker at the rate of 10*s.* per 1,000 prescriptions, and that it had not been possible to pay the chemists' accounts for the first quarter of 1915 in full. Mr. C. Gibbons, chemist, Woodstone, does not desire to continue dispensing under the Act after June 30, but as he is the only chemist in Woodstone, and there is not sufficient time to make other arrangements, the Committee decided not to terminate the agreement before September 30.

Southport.—At a meeting of the Insurance Committee on May 25, the Chairman of the Finance Sub-Committee, referring to the accounts, said all were on the right side with the exception of the Drug Fund, which would apparently be overdrawn at the end of the year if succeeding quarters proved to be as heavy as the past one, which, however, was acknowledged to be exceptionally heavy. It was also stated that the report from Mr. E. J. George on the checking of chemists' accounts was satisfactory as far as it went, but the figures were not quite reliable, as in some cases prescriptions had not been charged separately to the three funds—Ordinary, Domiciliary, and Sanatorium—hence the check was somewhat ineffective, and they could not give accurate information as to which section the increase is due. Practitioners had been asked to mark all prescriptions to the appropriate funds in future, and chemists will furnish separate accounts. A resolution forwarded by the Cambridge Committee asking the Commissioners to make a special warrant to the Medical Benefit Fund, as the men who have joined the Forces are the healthiest, and there is now a preponderance of unhealthy lives remaining, so that an unfair burden is placed upon the Medical Benefit Fund, had been considered by the Medical Benefit Sub-Committee, but while the Sub-Committee were in sympathy with the Cambridge Committee, it was felt that at present there is insufficient data to go upon to give support.

Surrey.—At a meeting of the Insurance Committee on May 26, the Medical Benefit Sub-Committee, in its report, expressed approval of a motion as to "stock mixtures," notice of which had been given by Mr. E. T. Neathercoat, Ph.C., to the effect that the Panel Committee having now issued a Pharmacopœia to pharmacists on the panel, the Committee, in conformity with previous resolutions regarding "stock mixtures," should at once inform pharmacists that the prescriptions must not be prepared in bulk and kept as "stock mixtures," but that pharmacists must prepare each prescription separately at the time of presentation. The Sub-Committee recommended the adoption of the motion. To this the Committee agreed. The Sub-Committee also recommended that payments to chemists for May and June should be at the rate of 80 per cent. of

the unchecked accounts, but the Finance and General Purposes Sub-Committee, in their report, stated that, in view of the fact that the payments to chemists for the first quarter of the year exceeded the proportion sanctioned by the Commissioners, the amount thus overpaid should be taken into consideration in discussing the payments for the second quarter. They were of opinion that not more than 66.6 per cent. should be paid on the unchecked accounts for May and June, and recommended that the Committee do not approve of the payments to chemists as recommended by the Medical Benefit Sub-Committee. On the suggestion of a member, the two recommendations were taken together and the words "and that the rate of advances for May and June be 66.6 per cent. of the unchecked accounts" were added to the recommendation of the Finance Sub-Committee. Licut-General Sir E. R. Elles, Chairman of the Medical Benefit Sub-Committee, said that, from the point of view of justice to the chemists, his Sub-Committee was in the right, but he felt that, from the point of view of expediency, the Finance Sub-Committee had no other course open to them. He pointed out that the best lives in the area had been called up for service, while the chemists' accounts were as much as before the war, and they lost the money that should come in for the healthy men. He did not think that the Commissioners can hold the chemists to their agreements in these circumstances. A member of the Finance Sub-Committee pointed out that that Sub-Committee agree that the chemists should be paid larger advances, but they were governed by finance. Mr. Neathercoat said he quite realised the position from the financial point of view. He pointed out that, owing to the war, an abnormal state of affairs had been created and some financial adjustment must be made to meet the case. He felt strongly that a grave injustice would be done to the chemists if only 66.6 per cent. were paid. He moved that the advances be at the rate of 80 per cent. This was seconded, but on being put to the meeting was lost by the casting vote of the Chairman. The report of the Finance Sub-Committee was then adopted. It was decided, after further discussion, that the Finance Sub-Committee should consider the special circumstances brought about by the war in relation to the Drug Fund and the advisability of making representations to the Commissioners regarding the state of the Drug Fund.

Warrington.—The Clerk to the Insurance Committee reports that the 1913 Drug Fund is more than sufficient to pay the chemists' accounts for that year in full, and that no steps have been taken to put into operation Article 40 of the Regulations.

Wiltshire.—The Insurance Committee, on May 19, passed payments to chemists of the balance of the accounts for the first quarter of 1915, and 90 per cent. of the claims for the quarter ending June 30, 1915, on receipt of the accounts. It was reported that 20,740 prescriptions (value 658*l.*) had been dispensed during the last quarter of 1914, compared with 26,058 (value 915*l.*) in the corresponding quarter of 1913. The prescriptions for the first quarter of 1915 numbered 34,870 (value 1,106*l.*), against 36,445 (value 1,273*l.*) in the first quarter of 1914. The Sub-Committee reported that the final credits for 1913 had now been received. The amount paid to doctors for dispensing in rural areas for that year was 2,343*l.* The Chairman of the Sub-Committee, in moving the adoption of the report, stated that a letter had been received from the Commissioners recommending an emergency settlement with chemists for 1914. The Commissioners proposed to assume a general percentage for enlistments, allowing a margin in favour of the chemists, and the amount available would be calculated on these lines. He thought they should not keep the chemists without a settlement for another quarter, and the Sub-Committee was authorised to settle accordingly.

SCOTLAND.

Dundee.—The Clerk of the Insurance Committee has intimated to chemists that the amount of the accounts incurred for medicines, etc., for 1914 exceeds by about 3 per cent. the amount of the Drug Fund, on the basis of the provisional credit for Medical Benefit. The accounts were accepted by the Pharmaceutical Committee, and the Clerk now sends payment of a sum which, with instalments already received, makes a total of 97 per cent. for the year.

Edinburgh.—Chemists have received cheques for 90 per cent. of the amounts of their accounts for April, along with a bonus for 1914.—The Medical Benefit Sub-Committee reported to the Insurance Committee on May 14 that 149,239 prescriptions (value 6,399*l.*) were dispensed in the area during 1913, and in 1914 156,460 (value 6,898*l.*). The provisional income of the Drug Fund for the medical year 1914 was 9,716*l.*, to which had to be added a balance of 206*l.* from 1913. This was distributed as follows: Pay-

ments to chemists, 6,898*l.*; to the Pharmaceutical Committee for administrative expenses, 69*l.*; representing "Drug Suspense Fund," 2,429*l.*; carried forward to 1915 for emergency purposes, 206*l.*; and balance available for distribution to chemists as a first bonus, 320*l.* The bonuses paid to chemists and others for 1913 amounted to 1,278*l.*, being 20 per cent. of the amounts of their accounts.—It was reported at a meeting of the Medical Benefit Sub-Committee that C. & O. Rowland, chemists, had asked that their name should be removed from the panel list as from May 28, as they are giving up business, and that Boots Cash Chemists, Ltd., had intimated that they had taken over the business of Gibson & Co., and had requested that the necessary alterations be made in the panel list. A list of chemists available for night calls and a list of those whose pharmacies are closed on Saturday afternoons was submitted from the Pharmaceutical Committee, and copies were directed to be sent to the Panel Committee. In response to a request for a ruling, the Sub-Committee informed a chemist that it does not approve of chemists supplying "repeat" prescriptions on the request of insured persons, even though the latter offer to pay for them. The Clerk reported that a doctor had requested to be allowed to supply an inexpensive "stump" for an insured patient who had had his leg amputated, and he had informed the practitioner that the appliance named is not included in the Tariff. The doctor, however, asked that the case be brought before the Sub-Committee. The Clerk was instructed to send copies of the correspondence to the patient's Approved Society and the Commissioners. It was reported that the Pharmaceutical Standing Committee (Scotland) had forwarded copies of the Supplementary Tariff for May, to enable the Insurance Committee to forward copies to each panel practitioner. The Clerk stated that he had forwarded the copies as suggested, and had called the attention of the practitioners to the points emphasised by the Standing Committee. The Sub-Committee, in view of the large increases in the prices of several drugs and the shortage of salicylic acid, agreed to remit the matter to the Joint Sub-Committee of the Panel, Pharmaceutical, and Insurance Committees, with powers to take immediate action. The Clerk to the Committee has sent to all Insurance chemists copies of the Central Checking Bureau Memos. described in the *C. & D.*, May 15, Col. Sup., p. xxx. This was followed by a circular letter, dated May 25, stating that it has been represented to the Insurance Committee that the arrangements hitherto in force for rendering and paying accounts monthly have proved so highly satisfactory to chemists and the Pharmaceutical Committee that (without prejudice to the instructions of the Central Checking Bureau) the present payments of 90 per cent. of the monthly accounts might be continued. This suggestion has been agreed to by the Insurance Committee.

WALES.

Flintshire.—The Insurance Committee on May 13 passed payments to chemists of advances of 60 per cent. of the amounts of their accounts for the quarter, and similar advances to dispensing doctors in rural areas. The question of the checking of the prescriptions for the past quarter and the analysis of the 1914 prescriptions was left to a Sub-Committee with power to act.

Newport Mon.—At a meeting of the Insurance Committee on May 19, Mr. John Jenkyn reported that at a recent meeting of the Executive Council of the Association of Welsh Insurance Committees, it was deemed impracticable to take any further action at present in regard to the establishment of a Central Checking Bureau for Wales, owing to insufficient support by Insurance Committees. It was reported that the Pharmaceutical Committee had protested against payments of 75 per cent. for the first quarter of 1915 instead of 90 per cent., as originally agreed, and the Clerk was instructed to inform the Pharmaceutical Committee that the whole amount provisionally advanced by the Commissioners for Medical Benefit for the first quarter had been apportioned in the manner prescribed by the Regulations. Regarding complaints made by the chemists concerning the delay of the Commissioners in making payments for war-scheduled drugs supplied during 1914, it was reported that the Commissioners have been asked to give early attention to the matter. An advance of 10*l.* was passed to the Pharmaceutical Committee for administrative expenses. It was resolved that the 1915 prescriptions should be checked locally, Mr. Paget, dispenser at the local hospital, being appointed to do the work at 10*s.* per 1,000.

Swansea.—Miss Olive M. Jones has been appointed from the staff of the Glamorgan Insurance Committee to check prescriptions and chemists' accounts at an annual salary of 100*l.*

Drug-trade Appeal Fund.

MR. CHARLES UMNEY presided at the annual meeting of the subscribers to this fund, held at the St. Bride Institute, London, E.C., on Thursday afternoon, May 27. He was supported by the Treasurer (Mr. C. B. Allen) and Secretary (Mr. W. Johnston), others present being Messrs. J. G. Atkinson, G. J. Knight, Peter MacEwan, Francis Newbery, G. P. Pond, and W. B. Trick.

The minutes of the last annual meeting were read and approved, after which the Chairman moved the adoption of the report and accounts. The former showed that one case for appeal had been considered, but the necessity for proceeding with it did not arise. The accounts showed a realisable balance of 5411., and the Chairman congratulated the trade on having such a nucleus if it is wanted. Mr. Allen seconded the motion, which was adopted after an interesting conversation, in the course of which Mr. Umney stated, in reply to Mr. Trick, that, in the event of any case for appeal arising which might menace the rights of retail chemists, he was sure the money would be forthcoming from wholesalers to get the judgment of the High Court upon it. The Secretary explained that the case referred to in the report was the Wincarnis-with-Quinine one. A magisterial decision adverse to the trade was taken by the Chemists' Defence Association to the Quarter Sessions, where it was reversed, so that the need for calling upon this fund did not arise. Incidentally, the Chairman, referring to spirituous medicines, commented upon Mr. Montagu's promise of a contribution to the Insurance Drug Fund from the 60,000*l.* special vote; and Mr. Trick explained that this was welcomed more on account of the principle involved than for the amount of money, which, he regretted to say, would not go far, as in London alone the deficit is over 100,000*l.*

The next business was the election of trustees, and on the motion of Mr. Trick, seconded by Mr. Knight, Messrs. C. B. Allen, C. J. G. Bunker, Walter Hills, L. O. Johnson, G. T. W. Newsholme, T. Tyrer, and Charles Umney were re-elected. Mr. Hills had written saying that he was willing to retire if the meeting so agreed; but, on the contrary, they unanimously desired him to continue to act as a trustee and as custodian of the stocks. A hearty vote of thanks to the Trustees, moved by Mr. Atkinson, and seconded by Mr. Newbery, concluded the proceedings.

Medical Gleanings.

Tocanaline in Childbirth.

WE referred recently (*C. & D.*, December 12, 1914, p. 39) to the use of tocanaline as a means of rendering childbirth painless. Doubts have been expressed as to whether the substance is anything more than morphine, but clinical experiences since published seem to show that tocanaline has some special properties in labour.

Emetine in Pyorrhœa.

EMETINE HYDROCHLORIDE in half-per-cent. solution, applied locally, is being used with success in the treatment of pyorrhœa. In addition to local treatment hypodermic injections of emetine are used, the doses being $\frac{1}{2}$ grain daily for eight days, or a larger dose of $\frac{1}{2}$ grain for the first day, and then after an interval of a day $\frac{1}{4}$ grain on two successive days. The success attending the treatment has led to the suggestion that a few drops of ext. ipecac. liq., B.P., should be used on the tooth-brush as a matter of routine, not only where pyorrhœa is present, but as a prophylactic measure. Ipecacuanha could also be added to mouth-washes.

Skin-sterilisation by Iodine.

MR. J. LIONEL STRETTON, who originated the method of skin-sterilisation by means of tincture of iodine, writes to the "*British Medical Journal*" regarding the use of the method in over 3,000 cases. He states that his extended experience has increased his confidence to such an extent that he never has any anxiety of skin-infection. Mr. Stretton reiterates that his experience has been gained with tincture of iodine of the British Pharmacopœia, and the method of employing it is to paint a wide area of skin half an hour before the patient is brought into the operating-theatre. When the anæsthetic has been administered another painting is performed, a swab of cotton-wool held in forceps being

employed. The skin should not be wetted before applying the tincture, as this causes swelling of the epithelial cells, which prevents the iodine penetrating to the deeper layers of the skin. It is not necessary to shave the parts, but thick hair can be trimmed with scissors.

German Nitrate Monopoly.

THE Association for the Protection of German Chemical-industry is strongly protesting against the Government Bill to give a commercial monopoly to the makers of nitrates by the electrolytic method, with air as the starting-point, and guaranteeing the producers against loss after the war. Reasons have been advanced by the Association for rejection of the Bill by the Reichstag Committee. The terms of the Bill were printed in the *C. & D.*, March 27, p. 46 and p. 61. In a memorial presented by the Badische Anilin- und Soda-fabrik, it is pointed out that the production of nitrogen is in course of great extension, that the company's new plant is calculated to furnish more than one-half of the nitrate imported since the beginning of 1914, and the capacity of extension of the plant is unlimited. Others are also making nitrates, it is said, so that there is no immediate prospect of shortage, and no need for giving anybody a monopoly. This is not the time for that sort of thing, say the memorialists; anyhow, the precedent, if created, may incite other industries to demand similar protection. This information is particularly interesting as it indicates some relief of the nitrate-famine in Germany, also that German chemists are not inclined to be trampled upon by their Government even in war-time.

Shopping and Shoppers.

THE following is the text of a letter issued by the Distributing Trades Committee of the Home Office as an appeal to the shopping public which we are asked to publish for the guidance of the retail drug-trade:—

Home Office, Whitehall, S.W.,

May 24, 1915.

An Appeal to the Shopping Public.

SIR,—As the Prime Minister stated in his recent speech at the Westminster Palace Hotel, the distributing trades have already contributed a very large number of men to the various national services, and it is hoped that a still greater number will be forthcoming in the near future in response to the further appeal of the military authorities.

It is no easy matter for employers to replace their enlisted assistants, and it is therefore clearly unreasonable to expect the same efficiency and promptitude in serving customers as before the war.

We appeal to the shopping public to co-operate with employers and their assistants in the patriotic efforts they are making by complying with the following suggestions:

1. Shop as early as possible in the day.
2. Do not expect immediate service during busy hours.
3. Carry home small purchases. Where goods cannot be conveniently taken home, give the option of delivery on the following day.
4. Send orders *in writing* where practicable, and as long as possible in advance.

The public have so far shown themselves very willing to make those sacrifices of personal convenience which are incumbent on every citizen at this time of national crisis, and we are confident that our appeal will meet with a cheerful response.

We are, Sir, your obedient servants,
THE "SHOPS COMMITTEE."

Cecil Harnsworth
(Chairman),
Margaret A. Bondfield,
Rose E. Squire,
Alfred Bird,
R. Burbidge,

Arthur J. Giles,
John Hinds,
Henry J. May,
S. T. Nicholson,
J. A. Seddon,
U. Wolff.

We suggest that the attention of customers should be called to the matter, as by exhibiting the letter on the counter, in those cases where chemists and druggists are working short-handed consequent on the war.

FIVE PANEL CHEMISTS met at Thornton on Wednesday, May 26, Mr. James Bissett presiding. It was decided to remain on the panel, the previous resolution to the contrary thus being rescinded. We reserve our fuller report of the proceedings.

Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, E.C., May 27, 6.30 p.m.

THE Whitsuntide holidays, coupled with the fine weather, has limited attendance in the various markets, and altogether the tone has been quiet. The participation of Italy in the European war on the side of the Allies may interfere with supplies of produce from that source, but, with the exception of a further substantial advance in cream of tartar and tartaric acid, no immediate effect is observable. Large arrivals of lemon oil have taken place from Sicily during the past six weeks, and very fair stocks exist. Citric acid is dearer on American demand. Ammonia sulphate (London) is also firmer; copper sulphate is a trifle easier; hyposulphite of soda is firmer as the result of higher American freights and spot scarcity; soda nitrate is firm, and turpentine is dearer. Opium is steady and unaltered; the makers of alkaloids continue extremely busy, and orders for early delivery are refused. Acetanilide is offered more freely, and prices are easier. Chloral hydrate and formaldehyde are getting scarcer. Potash prussiate is firmer, soda being unchanged. Bromides are unaltered, but the position is gradually becoming firmer.

Higher	Firmer	Easier	Lower
Antimony	Ammonia	Acetanilide	Hydrastis
Citric acid.	sulphate	Copper	(N.Y.)
Cream of	(London)	sulphate	Rosin
tartar	Cascara	Menthol	Soya oil
Guarana	sagrada	Shellac	
(N.Y.)	Mercury		
Linseed oil	Potash		
Tartaric acid	prussiate		
Turpentine	Quinine		
	(sec. hands)		
	Soda hypo-		
	sulphite		

Cablegrams.

BERGEN, May 27.—Stormy weather prevails in the Finmarken district and the cod-fishing continues small. The catch of cod for the whole of Norway amounts to 58,430,000, against 68,615,000 for the corresponding period of 1914, and the yield of steam-refined oil is 47,553 hect., against 50,634 hect. last year. The market for finest medicinal quality is quiet at 160s. per barrel c.i.f. terms.

NEW YORK, May 27.—Business in drugs is moderate. Opium is quiet at \$7.00 per lb. for druggists' by single cases. Peppermint oil in tins is firm at \$1.65. Menthol is steady at \$2.75. Guarana is higher at \$1.10 per lb. Hydrastis has been reduced to \$4.65. Balsam Peru has advanced to \$3.85, and cascara sagrada is steady at 8c. per lb.

London Markets.

ACETANILIDE is offered more freely from the U.S.A., and is now obtainable at slightly below 5s. per lb.

AMMONIA SULPHATE is firmer, at 13*l.* to 13*l.* 5s. per ton net, naked at works, London, for 25-per-cent. ammonia; Hull, 24-per-cent., is 13*l.* 15s.; Liverpool, 13*l.* 15s.; Leith, 14*l.* to 14*l.* 2s. 6*d.*, prompt and forward, per ton in bags f.o.b., less 3*l.* per cent.

ANTIMONY.—Business has been done in China crude at 70*l.* per ton net on spot; and value.

BELLADONNA-ROOT.—About 16 packages root and leaves have arrived, but they have gone into consumption.

BLACK HAW.—For bark of root 10*l.* net is asked on spot.

BROMIDES are unchanged, but the position is becoming gradually firmer, owing to very limited quantities being available.

CAMPHOR (REFINED).—Japanese remains firm with sellers of 2½-lb. slabs for June-July shipment at 1s. 6*d.* per lb. c.i.f. and slabs on the spot at 1s. 9*d.*

CANTHARIDES.—New arrivals of Russian flies are offered at 10s. 6*d.* per lb.; there are buyers at 10s.

CASCARA SAGRADA.—Business has been done on spot at from 50s. to 52s. 6*d.* per cwt. for fairly old bark.

CHLORAL HYDRATE is becoming rather scarce again.

CINCHONA.—The auction to be held at Amsterdam on June 11 will consist of 862 bales and 944 cases, weighing 101,449 kilos. The first-hand stock at Amsterdam on May 20 consisted of 10,665 packages Government and 54,374 packages private bark.

CITRIC ACID is ½*d.* per lb. doarer at 2s. 6*d.* to 2s. 6½*d.* per lb.; business has been done for American account this week.

CLOVES remain firm, with sellers of fair Zanzibar at 7*d.* to 7½*d.* per lb. on the spot; to arrive, April-June shipment is quoted 6½*d.* c.i.f. d.w., and June-August delivery 6¾*d.*

COCA LEAVES.—The auction to be held at Amsterdam on June 11 will consist of 3,330 packages Java leaf, weighing 181,846 kilos.

COCAINE is unchanged, at 15s. per oz., less 5 per cent., for hydrochloride.

COCOA BUTTER.—Sellers of English quote 1s. 5*d.* per lb.

COD-LIVER OIL.—Our Bergen correspondent writes on May 18 that the Finmarken cod-fishing has made only small progress, partly owing to stormy weather. Up to May 15 the total output of all our cod-fisheries was as follows:

	1912	1913	1914	1915
Catch of cod (millions)...	81.9	59.2	63.8	66.8
Yield of c.l.o. (hect.) ...	61,300	37,000	49,300	46,200
Yield of liver for raw oils (hect.) ...	21,800	7,300	9,300	7,700

Although the export of cod-liver oil is at present almost negligible, a firmer tendency is noticed, and the last quotation of 160s. per barrel c.i.f. for prime non-congealing quality has been well maintained. The total exports to the end of April amount to 45,400 barrels in 1915, against 15,000 barrels at the corresponding date of 1914.

The following report is from a well-informed Norwegian correspondent, under date of May 21:

"We beg to inform you that the total yield of cod-liver oil up to date amounts to 40,250 barrels. The stock of steam-refined oil left over from last year was estimated at 50,000 barrels on January 1, 1915. The exports up to May 8 amounted to 45,414 barrels, so that there should be a surplus of about 44,836 barrels, of which no doubt a certain part has been sold on future delivery, but not so much as usual, as the high prices have checked the demand considerably, both from the U.S.A. and the United Kingdom. The demand from Germany has also ceased, and it now appears that much of the oil previously sent to Hamburg was sent there on consignment, and that the Hamburg market had become overstocked. The consequence was a considerable decline in prices in Hamburg, steam-refined oil being sold as low as 115 marks per barrel. Norwegian speculators who hold large quantities of oil at home found it to their interest to raise the price in Hamburg, and have this week got the price up from 123 to 150 to 160 marks a barrel. The fishing in Finmarken continues rather small, and in the eastern part of that district there are shoals of seal along the coast, and, therefore, very little cod-fishing.

COLCHICUM-ROOT.—About 18 bales have arrived, but have all gone into consumption.

COPPER SULPHATE continues very quiet at from 27*l.* 5s. to 27*l.* 10s. per ton for the usual Liverpool brands.

CREAM OF TARTAR has been in good demand, principally for export, and prices have sharply advanced (especially at the close), up to 175s. per cwt. having been paid for 98-per-cent. powder. The possibility of Italy being unable to make shipments makes a further advance inevitable.

DEXTRIN.—The recent high rates are fully maintained in view of the light stocks; the demand is, however, slow. The same applies to farina.

DRAGON'S BLOOD.—Practically all the reboiled lump has been cleared at the limit of 20*l.* per cwt.

EPSOM SALTS.—The principal makers are still unable to offer owing to the shortage of the raw materials and labour. Dealers continue to obtain fancy prices for single packages.

ERGOT is quiet, at from 2s. 6*d.* to 2s. 7*d.* per lb. for Russian on spot.

FORMALDEHYDE is unchanged, with a scarcity of offers for May-June shipment. The value is about 55s. per cwt. in casks for 40-per-cent. volume.

GALLS.—Persian remain firm at 80s. to 85s. for blue and 70s. for green on the spot. No arrivals have taken place nor are any expected.

GELATIN.—There is great scarcity of gelatin in this country owing to the cessation of supplies from Belgium. The English factories are behindhand with orders, and great difficulty is being experienced in obtaining delivery. For good crystal gelatin, for which about 98s. to 100s. was asked some months ago, 155s. is now required, and the quality which formerly sold at 46s. now realises 96s. per cwt.

GUAIACOL CARB. is obtainable at 16s. per lb.

HYDROQUINONE is rather dearer at from 11s. 6d. to 12s. per lb.

ISAROL AND LITHOL, which are recognised by the medical profession as genuine substitutes for ichthyol, are selling at from 10s. per lb. and 4s. to 4s. 6d. per lb. respectively.

JALAP.—Business has been done at 1s. 2d. per lb. for Vera Cruz, testing 13 per cent.

LEMON OIL is quiet, at from 3s. 9d. to 3s. 11d. per lb. c.i.f. and 4s. 3d. to 4s. 6d. on the spot.

LIME OIL.—West Indian distilled is unobtainable; last business was at 4s. 9d.

LYCOPodium.—For treble-sifted 3s. 6d. per lb. is quoted in quantity.

MAGNESITE.—There is reported to be a large demand for this mineral, for prompt and near delivery, in view of the extreme shortage in raw materials for manufacturing magnesium sulphate.

MENTHOL continues quiet, with spot sellers at 10s. to 10s. 3d. per lb., and Kobayashi at 9s. 3d. c.i.f. for May-June shipment. Large arrivals of menthol and mint oil have taken place.

METHYL SALICYLATE.—Sellers quote 8s. per lb.

MINT OIL.—Japanese is slow on spot at 3s. per lb. and to arrive; Suzuki has been done at 2s. 8d. c.i.f. for May-July shipment.

OILS (FIXED).—*Linseed* is dearer, at 29s. 6d. per cwt. in pipes on spot and 30s. 9d. in barrels. *Cottonseed* is firm, crude on spot in pipes offering at 31s., pale refined in pipes at 33s. 3d. to 33s. 6d., and sweet refined in barrels 37s. to 39s. per cwt. *Cocunut* is quiet, Cochin on spot offering at 46s. to 48s., afloat 44s. 6d. c.i.f., and London pressed 37s. for May-June delivery. Ceylon in hogsheads is 43s. and pipes 42s. on spot; afloat is 40s. 6d. c.i.f. *Rape* is unchanged, at 38s. 9d. for ordinary brown crude, naked, and at 40s. to 41s. for English refined in barrels. Japan in cases is quoted 33s. for April-May shipment. *Soya* oil quiet at 26s. c.i.f. terms for Manchurian. *Lagos Palm* oil is 30s. 6d. in Liverpool, the spot price being 37s.

OPIMUM.—The London market remains firm and unchanged for Turkey druggists' opium, and under present conditions holders of spot stocks, which are small, prefer to look on, believing in a firmer market later, especially as permission is being refused to allow further imports of enemy product. For 11 per cent. 23s. per lb. on the spot is quoted, Persian being obtainable at from 17s. to 22s. per lb. as to test.

PARAFFIN (LIQUID) of finest medicinal quality (0.885 to 0.890 sp. gr.) is selling at 12s. per gal.

PEPPER.—Quiet but steady, with sellers of fair black Singapore at 6½d. per lb., Tellicherry at 5½d., Alleppy 5½d., and Lampong at 6d. per lb.; to arrive sellers of May-June shipment quote 5½d. c.i.f. *White* Singapore is quoted on spot at 9½d. for fair, Muntok at 10d., and Penang 9d.

PEPPERMINT OIL.—Quiet, with spot sellers of good brands of American tin oil at 7s. 6d. net.

PONOPHYLLUM-ROOT has been a nominal market of late, but new supplies are on offer, values being about 50s. per cwt.

POTASH CAUSTIC is quoted in small quantities at 125l. per ton for 88 to 90 per cent., but supplies are becoming very scarce.

POTASH PRUSSATE is dearer at 1s. 4d. per lb. *Soda* is unchanged at 8d.

POTASHES.—Montreal are offered at 75s. on spot for first Government brand.

QUININE.—Business for consumption has been done in the usual Continental brands at 1s. 4d., at which there are further sellers.

SALICYLIC ACID.—Current values are from 9s. to 10s. per lb., with one seller asking 10s. 6d.

SASSAFRAS BARK OF ROOT has been sold at 8½d. per lb. net on spot.

SHELLAC remains very quiet, with usual TN quality offering at 59s., good 60s. to 61s., and fine E. & O. 63s. AC Garnet is 60s. and GAL 59s. per cwt.

SODIUM HYPOSULPHITE is rather scarce on the spot at the moment, but prices should be easier in June, when new shipments are anticipated. The value is about 13l. per ton in small quantities.

SODIUM BISULPHITE.—British makers find difficulty in meeting the ordinary commercial demand, but contracts for September-October shipment have been booked at 18l. per ton f.o.b. Liverpool for 60 to 62 per cent. SO₂ in 1-cwt. drums.

SODIUM NITRATE is firm at 13l. 15s. per ton for ordinary and 14l. for refined.

SODIUM SALICYLATE.—Prices of American make of powder vary from 13s. to 13s. 6d. as to seller. There is a possibility of prices being reduced next month, when further supplies will be available.

TARTARIC ACID is from ½d. to 1d. per lb. dearer at from 1s. 9d. to 1s. 9½d., prompt delivery being extremely scarce.

TURPENTINE has advanced practically 2s. 6d. per cwt. on spot in conjunction with a sharp advance in America, up to 36s. 7½d. per cwt. having been paid.

WAHOO BARK OF ROOT has been sold at 1s. 10d. net on spot.

WAX, VEGETABLE.—Sellers of Japanese for June-July shipment quote 46s. per cwt. c.i.f. terms. The spot value is about 55s.; market very quiet.

WITCH HAZEL.—Either bark or leaves are quoted at 4d. per lb. net on spot.

ZINC OXIDE is a firm market at 60l. to 65l. per ton for B.P. quality.

Arrivals of Chemicals and Drugs.

During the period May 19 to 25, inclusive, the following produce from the places mentioned in parentheses has arrived at the English ports stated. Goods in transit are not included. The figures denote packages where not specifically described:

Acetic acid (Rotterdam) pkgs. 93, (N. York) brls. 213, dms. 5	Drugs (Philadelphia) pkgs. 13, (Calcutta) pkgs. 9, (N. York) pkgs. 62
Acetone (U.S.A.) dms. 1,033	Essential oils (Catania) cs. 314, (Messina) pkgs. 61 (Palermo) cs. 37, (N. York) pkgs. 16, H.-Kong cs. 20, (Amsterdam) cs. 12
Agar-agar (Kobe) bls. 95	Farina (Holland) 150, (Halifax) 778
Ammon. perchlor. (Gothenburg) cs. 150	Fig-syrup (U.S.A.) cs. 4,160
Anise oil, star (H.-Kong) cs. 50	Formic acid (Rotterdam) pkgs. 60
Annatto-seed (Cocanada) bgs. 130, (Madras) 92	Fruit-essences (Rotterdam) cs. 18
Antiplogistin (N. York) cs. 576	Gelatin (Barcelona) pkgs. 50
Argol (Oporto) pkgs. 171, (Bordeaux) bgs. 207, (Catania) bgs. 81, (Messina) pkgs. 539, (Barcelona) cs. 124, (Naples) bgs. 217, eks. 49	Gentian (Bordeaux) bls. 167
Arrowroot (Trinidad) brls. 200	Glucose (U.S.A.) 2,742
Arsenic (Oporto) brls. 147, eks. 95	Glycerin (Oporto) dms. 21, (Rotterdam) dms. 33
Barytes sulphate (Barcelona) pkgs. 2,535	Gum accroides (Adelaide) bgs. 999
Borate of lime (Chile) sks. 6,034	Gum copal (Delagoa Bay) cs. 10, (Singapore) bkts. 215, bgs. 116, (Colombo) pkgs. 48
Calcium carbide (Gothenburg) dms. 1,000	Gum damar (Singapore) cs. 202, (Batavia) bgs. 870
Camphor (Japan) cs. 10, (Marseilles) 25	Gum kauri (Auckland) 125
Cananga oil (Batavia) cs. 20	Gums, undescribed (Adelaide) bgs. 986
Capsicums (Beira) 12	Hydrogen peroxide (N. York) cs. 300
Caraway-seed (Holland) 250	Indigo (Cartagena) cs. 8, (Madras) chts. 33
Casein (La Pallice) bgs. 45	Lemon-juice (Messina) pps. 146
Cassia (H.-Kong) cs. 250	Lemon oil (Messina) ½ cs. 70 (see also <i>Ess. Oils</i>)
Cassia oil (H.-Kong) cs. 25	Lime oil (Trinidad) cs. 4
Castor oil (Cocanada) eks. 117	Linseed (Calcutta) bgs. 3,410
Castor-seed (Cocanada) bgs. 12,975	Liquorice-juice (Catania) pkgs. 60
Chaulmoogra oil (Calcutta) pkgs. 5	Listerine (Dieppe) cs. 115
Chemical prod. (Boulogne) cs. 30, (Havre) cs. 50	Magnes. chlor. (Copenhagen) dms. 150
Chemical prod., medicines, perfumery, etc. (N. York) pkgs. 414, medicines (Boston) cs. 41	Magnesite (Madras) bgs. 1,431
Cinchona (Calicut) pkgs. 121, (Amsterdam) 135	Menthol (Japan) cs. 120
Citrate of lime (Catania) eks. 164	Milk-sugar (Amsterdam) cs. 200
Citric acid (Palermo) eks. 280	Mineral waters (France) cs. 320, (Japan) cs. 100
Cloves (Zanzibar) bls. 300	Mineral white (Bergen) bgs. 1,000
Cochineal (Las Palmas) 38	Mint oil (Japan) cs. 180
Cocunut oil (Singapore) cs. 7,500, (Holland) cs. 100	Nut oil (Bordeaux) eks. 21
Cod-liver oil (Bergen) brls. 425	Nux vomica (Cocanada) bgs. 802, (Madras) bgs. 481
Cream of tartar (Marseilles) eks. 112, (Bordeaux) eks. 9	Olive oil (Tarragona) brls. 75, (Malaga) eks. 5, (Marseilles) cs. 211, (Seville) pkgs. 461
Cubebs (Amsterdam) bgs. 10	Peppermint oil (N. York) cs. 45
Dextrin (Holland) 190, (N. York) 137	
Divi-divi (Cocanada) bgs. 269, (Madras) bgs. 1,230	

Perfumery (France) cs. 27
 Petro. emulsion (Boston) bxs. 2,232, 2 brls. 26
 Potash caustic (N. York) dms. 50
 Potash iodide (Japan) cs. 20
 Potash prussiate (France) 11
 Potash salts (Gothenburg) brls. 8
 Quinine (Philadelphia) bxs. 30, (Holland) cs. 44
 Rape-seed oil (Japan) cs. 2,300
 Rhubarb (Shanghai) cs. 9
 Roots, barks, herbs, etc. (N. York) bls. 92, (Marseilles) 96; seeds 77
 Saltpetre (Catania) pkgs. 960, (Calcutta) bgs. 1,970
 Shellac (Calcutta) cs. 250
 Soda acetate (N. York) brls. 40
 Soda nitrate (Chile) bgs. 1,9832
 Soda oxalate (Troport) cks. 22
 Soy (Japan) cks. 10, (H.-Kong) 100
 Soya-bean oil (Darien) cs. 3,000, (Kobe) 4,500
 Squill (Catania) bgs. 116
 Strophanthus (Beira) bgs. 22
 Sulphur (Catania) pkgs. 12,177
 Tamariind (Trinidad) brls. 14, (Calcutta) cks. 66
 Tartar (Messina) cks. 32, (Barcelona) brls. 41, (Marseilles) bgs. 117
 Tartaric acid (Bari) cks. 68, (Marseilles) cks. 30, (Naples) brls. 128
 Turmeric (Madras) 266
 Turpentine (Seville) dms. 113
 Vanilla-beans (Auckland) cs. 50
 Vanillin (N. York) brls. 8
 Verdigris (Bordeaux) cks. 11
 Wattle-bark (Beira) bgs. 836
 Wax, bees' (Mozambique) bgs. 74, (Beira) pkgs. 275, (Delagoa Bay) pkgs. 125, bgs. 34, cs. 427, (Oporto) pkgs. 21, (E. I.) pkgs. 16, (Rangoon) bgs. 29, (Malaga) 4, (Rotterdam) bgs. 73, (Madras) 5
 Wax, undescribed (Marseilles) pkgs. 705
 Wax, vegetable (Kobe) 40
 Wine-lees (Valencia) bgs. 247, (Lisbon) bgs. 1,232
 Witch-hazel ext. (Boston) brls. 4
 Wood oil (Shanghai) cks. 150, (H.-Kong) cks. 56, (Hankow) 304
 Zinc oxide (N. York) 1,310, (Holland) 225

To Liverpool.

Argol (Oporto) cks. 24, (Naples) bgs. 179
 Balsams (Maranham) pkgs. 14
 Cream of tartar (Tarragona) cks. 10, (Bordeaux) cks. 19, (Marseilles) cks. 16, (Oporto) cks. 10
 Ginger (W. C. Africa) bgs. 1,148
 Glycerin (Bordeaux) cks. 40, (Marseilles) dms. 418
 Gums, undescribed (Lisbon) cs. 46
 Indigo (Shanghai) cks. 757
 Ipecacuanha (Bahia) bls. 14
 Jaborandi-leaves (Parnahyba) bgs. 50
 Leaves, medicinal (Marseilles) bls. 74
 Linseed (R. Plate) bgs. 4,673
 Magnesite (Greece) tons 2,100
 Mineral waters (Rouen) cs. 100, (Marseilles) cs. 1,500, crts. 450, (Havre) cs. 116
 Olive oil (Mitylene) brls. 2,145, (Bordeaux) cs. 160, (Marseilles) cs. 99, (Patras) brls. 127
 Palm-kernels (W.C. Africa) bgs. 35,418, tons 189
 Palm oil (W.C. Africa) cks. 2,016
 Perfumery (Havre) cs. 68
 Quebracho ext. (Buenos Ayres) bgs. 50,070
 Quillaia (W. C. S. America) bls. 1,028
 Rosin (Bordeaux) cks. 4,557
 Tartar (Piræus) bgs. 250
 Tartaric acid (Marseilles) cks. 36
 Wax, bees' (Taleahuano) sks. 60, (Valparaiso) sks. 116, (Coquimbo) 7, (Gibraltar) bls. 30, (W.C. Africa) pkgs. 131, (Shanghai) cs. 25
 Wax, carnauba (Pernambuco) bls. 679, (Ceara, etc.) pkgs. 4,104
 Wax, undescribed (Lisbon) pkgs. 724
 Zinc oxide (U.S.A.) 500
 To Manchester.
 Aniline colours (Marseilles) cks. 130
 Castor oil (Marseilles) cks. 58
 Citric acid (Mediterranean) 12, (Marseilles) cks. 6
 Coconut oil (Marseilles) brls. 410
 Farina (Rotterdam) bgs. 1,874
 Mineral waters (Marseilles) cs. 650
 Turpentine (Savannah) cks. 500

To Bristol.—Canary-seed (Cadiz) bgs. 250; earaway-seed (Holland) 125; lead acetate (Rotterdam) 6. To Folkestone.—Perfumery (Boulogne) pkgs. 97. To Hull.—Acetic acid (Rotterdam) blns. 20; borio acid (N. York) brls. 1,178; calcium cyanamide (Bergen) bgs. 1,400; caraway-seed (Harlingen) bgs. 10; carbon black (N. York) cs. 200; castor-seed (Bombay) bgs. 48,958; chemical prod. (N. York) brls. 530; cotton-seed (Bombay) bgs. 9,072, (Alexandria) cwt. 80,520; cream of tartar (Gcnoa) brls. 84; glucose (N. York) brls. 820; honey (Rotterdam) brls. 47; linseed (Bombay) bgs. 9,072; magnesite (Drammen) bgs. 508; oxalic acid (Gothenburg) cks. 10; potash prussiate (Genoa) brls. 20; soya beans (Darien) bgs. 55,530; soya-bean oil (Darien) cs. 10,000, drms. 1,200; tartaric acid (Bari) brls. 138; zinc oxide (N. York) brls. 3,675.

Heavy Chemicals.

Manchester, May 26.

The attendance on the Chemical 'Change reflected to some extent the condition of things prevailing in Lancashire from a holiday point of view. The market was listless in character and a holiday tone prevailed. Heavy chemicals showed no change, and deliveries were normal. Lead products are still very scarce, and it is difficult to get deliveries of local-made stuff. Borax crystals rule easier. Potash products are maintaining full late rates, yellow prussiate being firm at 1s. 5d. to 1s. 6d. per lb. Sulphate of copper ruled easier at 28l. 2s. 6d. to 28l. 7s. 6d. per ton delivered Manchester. Coal-tar products showed little change. Carbolic acid is easier, and benzols are nominal. Sulphate of ammonia is firm at 12l. 17s. 6d. London; 13l. 12s. 6d. Hull; 14l. Leith; 13l. 15s. Liverpool; and 13l. 7s. 6d. to 13l. 10s. per ton, prompt on rails Manchester.

Phenol Products in U.S.A.

The shortage of coal-tar preparations used in the dye trade, as well as phenol and its derivatives, has become more acute, and prices have advanced sharply, says the

"N.Y. Commercial" of May 12. Carbolic acid has been raised 25 cents per lb. to \$1.50 per lb. This has resulted in higher prices for phenol preparations such as salicylate of soda, salicylic acid, acetanilide, acetphenetidin, coumarin, phenolphthalein, and proprietary articles. An increased domestic production of benzol, toluol, and carbolic acid is expected in the next few months. Concerns, which are now engaged in production, state that the available supply of crude material for making coal-tar chemicals is insufficient, owing to the fact that steel companies are only working at 70 per cent. of capacity. The installation of benzol recovery apparatus in Pennsylvania steel plants is progressing, and the output is much greater to-day than in January, when plants were working at 40 per cent. capacity. One of the leading Philadelphia companies specialising in the manufacture of these chemicals is confronted with a great scarcity of crude material, as steel companies now engaged in recovering benzol from their waste are either using practically all of their own output or are selling it to the Allies. This company announced sales of 6,000 lb. of carbolic acid on the basis of \$1.45 per lb., and contract sales of 2,000 tons on the basis of \$1.50 a pound, an advance of 25 cents. Normally carbolic acid is worth 8 cents. The company's entire output up to 1916 has been sold. Toluol is only being offered by the company for delivery from June 1916. One of the new companies recently established in Pennsylvania has consummated a three-year contract with one of the largest dye-manufacturing companies for aniline oil on the basis of 25 cents per lb. Based on the present price of 75 cents a gallon for benzol on contract, this should show the Pennsylvania company a profit of 100 per cent. Leading sellers predict a steadily rising market for all coal-tar products, despite increased domestic production, and that it will be years before the supply will be anywhere near adequate for existing manufacturing uses.

Cretan Olive Oil.

Writing on the olive-oil market at Canca (April 21), the British Vice-Consul states that "owing to the large demand from Venice and Genoa, prices have reached 1l. 22c. per oke. This means a f.o.b. Canca price of 47l. per ton of 1,000 kilos, including the new export tax of 1l. 30c. per 100 okes. These are the cost-prices of olive oil purchased on the spot, and do not include the exporter's commission. In order to obtain a c.i.f. U.K. quotation, British importers must add the cost of freight and insurance to the f.o.b. price. Freight rates to the United Kingdom are unsteady, but the present rate stands at 55s. per ton. Marine and war-risks insurance should be calculated in the United Kingdom, as it is better for British importers to do this themselves upon receipt of telegraphic information from shippers at Canca of the shipment of the goods. The acidity of the oil is high, running from 8 per cent. upwards, and Cretan exporters are unwilling to make offers on a fixed rate of acidity. There has been a large decrease of shipments to the United Kingdom owing to high prices and undue percentage of acidity. On the other hand, shipments to Italy have increased greatly, and this oil is largely re-exported from Italy to Austria and Germany by Italian merchants and agents of Cretan shippers in Venice. It is said that enormous prices for olive oil are being paid in Trieste, and several Greek steamship companies have established new lines running from Piræus to Venice, whence the cargo is diverted to Trieste. Stocks of oil at Canca are small, not exceeding 600 to 650 tons in the town of Canca, though in the district there is probably some 1,000 to 1,200 tons"

TO-DAY (Thursday) one of the French air squadrons, composed of eighteen aeroplanes, each carrying 50 kilos. of projectiles, bombarded the Badische Aniline Chemical-works at Ludwigshafen, one of the chief factories for making explosives. Several buildings were struck and numerous fires were started. The airmen remained over six hours in the air and covered over 400 kilometres (250 miles).

WILD BEESWAX.—The "Indian Trade Journal" reports that commerce in wild beeswax is constantly increasing in most of the African Colonies, especially Gambia, Gold Coast, Nigeria, Angola, Sudan, Uganda, British East Africa, German East Africa, and Mozambique. A few years ago the exports of wax from these countries were almost insignificant, but now (according to Mr. E. Michel, the author of an article in the "Bulletin Agricole du Congo Belge") it amounts to thousands of tons. Wax occupies the third place in the export-trade of Angola, which annually ships from 600 to 700 tons, while Mozambique exports about 100 tons, and Portuguese Guinea 50 tons. In 1911 German East Africa exported over 800,000 lb., valued at 40,000l.



Memoranda for Correspondents.

- Communications should be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with. Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest. Correspondents are requested to write each query on a separate piece of paper. Every endeavour is made to reply to queries without delay, but insertion of the replies in "the next issue" cannot be guaranteed, nor, as a rule, can they be sent by post. Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed, even when the writers use a "nom de plume." Complete and systematic indexes of the "C. & D." are presented with the last issues in June and December each year. Every subject dealt with week by week is included, and correspondents are advised to refer to these and the "C. & D. Diary" before asking the Editor for information, so as to save time.

Territorial Representation.

SIR,—The observations and reflections of "Xrayser II." last week are to me very fascinating. I cannot acquit him of being destructive at times, possibly not intentionally so, but he can wield the wet blanket very effectively. The term "trade union" used so frequently, only serves to focus vague longings for a more virile expression of our existence. The Pharmaceutical Council, elected as it is, can never command the full co-operation of individuals from the commercial point of view; its limitations are obvious. An allied body on a limited franchise for defined areas would be far more expressive. Some of us who helped at the birth of the Associations Executive thought we were supplying the necessary adjunct. As "Xrayser II." says, our organisation is imperfect: the Executive has, to use a vulgarism, been "nobbled," and that is where the thing jars. Had we, in the beginning, been truly democratic instead of rendering it lip-service only, "we should have controlled our representatives instead of them controlling us." The scheme of federation so lucidly set forth in the *C. & D.* was too independent for us to swallow, so we have to begin all over again. If I know anything of the militants who are at the present time working with clear ideas in view, it is not to create anything new, but to breathe the efficient life-service into our Association in order to give them adequate expression on a territorialised Executive, which, after all, would appear to command "Xrayser's" sympathy and assistance.—Yours truly,
G.N.C. Hospital, London. HERBERT SKINNER.

SIR,—"Xrayser II." must not take it amiss if he is told, as according to his own admission he is, that heretofore his criticism has been destructive rather than constructive. His reiteration in *THE CHEMIST AND DRUGGIST* last week of the need of the old panacea of territorial representation does not necessarily embody the suggestion of a change for the better. Territorial representation has been too long an ostentatious catchword, a high-falutin' verbalism recalling the pretentious jargon of the seedy individual in "The Vicar of Wakefield." It may be a good thing, it may be a bad thing, but let us examine the proposition critically instead of allowing ourselves to be led astray by a fine phrase. We have taken the idea from Parliamentary representation as practised in this country; but while, as I understand, territorial representation in pharmacy is to mean the election of local men, it does not usually mean this in the case of Parliamentary representation. Again, pharmacy is a thing which is responsible for only a very tiny percentage of the population, and therefore there may well be many areas in which really first-class men are not to be found, especially while talent continues to gravitate to the big cities, and particularly to the Metropolis. One result, therefore, of territorial representation is to put an artificial handicap upon merit and a corresponding premium upon the irrelevant and frivolous qualification of residence. We should prefer a local nobody to a distinguished pharmacist living fifty miles off. More than this, territorial representation would confirm us in one of the worst of English faults—parochialism. To confine our outlook to national pharmacy is a sufficiently narrowing exercise; but how much narrower and more locally circumscribed should we become if our

thoughts were continually directed not even to pharmacy as a whole, but merely to local conditions of pharmacy and to the "local man"! The present arrangement is the one best calculated to place the ablest men of pharmacy as a whole at the service of pharmacy as a whole. Leaders like "Xrayser II." should, if they know their business, teach us to widen, not to narrow, our outlook; to think of national pharmacy instead of petty local affairs merely. It is *esprit de corps* we want, as I have so often pointed out in these columns, not extra inducements to narrowness. Personally, I would like to see proportional representation introduced along with larger lists of candidates and the minor reform of payment of expenses, on a modest basis, of successful candidates; but one fears that it must be placed alongside "that blessed word, Mesopotamia!"

Yours truly,
Chester. R. CECIL OWEN.

Chemists' Assistants and the War.

SIR,—It appears quite time that something should be done in order to retard the depletion in the ranks of chemists' assistants. The increased number of men required for the Insurance Act had already brought about a great scarcity, of assistants before the war began, and now that large numbers are joining the Army (many of them feeling it compulsory) the matter is becoming a very serious problem. I understand that several wholesale firms are obtaining badges from the Government for their employes' where medical goods are supplied, and I certainly think the Pharmaceutical Society might obtain permission to supply some such badge to retail chemists for the use of their assistants and apprentices at a small charge. Should compulsory service be suddenly enforced upon the country assistants would be almost unobtainable, and in the public interest a move should be made before such a calamity occurs. Yours faithfully,

Brighton. A. J. FRANKLIN.

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Appreciations.

A Subscriber (111/47), writing in regard to a note inserted in the *C. & D.*, says: "Considering the circulation of your Journal, your kindness served a purpose that perhaps half a dozen notices elsewhere could not have accomplished."

Mr. J. C. Caine (Birkenhead), writing in regard to our note on the Birkenhead Pharmacists' Association's price-list, adds: "I have had hundreds of applications, which came from all parts of the kingdom, for copies, which shows that something of the kind was wanted."

Scarcity of Medical Men and the Preliminary Examination.

"I wish to thank you for printing my letter in the *C. & D.* of May 15. I have had a great many replies and your columns have been frequently quoted. I wish to inform you that I have nearly 200 names of qualified chemists on my list and am anxious to have the number made up to that. Will those who are willing to fall in with my suggestion inform me by postcard? I wish to thank you for the expression of your opinion. It is what is generally contained in the letters I have received."—R. J. Rutherford (Newbiggin-by-the-Sea).

What to do with Rubber.

"Owing to the varied taste of the public in the use of rubber teats for feeding-bottles and soothers the aggregate stock of chemists in deteriorating process must be fairly considerable. In my own case alone about half my stock of black rubber is exhausted. It has occurred to me to ask if there is an economic use for perished rubber, as one is tempted to believe our best rubber sheeting now is not pure or proof against moisture, and you may be able to advise how it can be passed on to Germany by Government permission if not used in our own country."—Rubber (86/10).

Kava (Kava Rhizoma, B.P.).

"In 1886 I sailed round the world visiting, among other places, Maldon Islands and Tahiti (part of the Polynesian Islands) and saw how the native girls with good teeth chewed the kava-root, expectorating the flow of saliva into coconut bowls to ferment, so as to make the intoxicating spirit used at festivities. The effect of the liquor is that the motor functions of the guests become inco-ordinated, although the intellectual functions are but little affected. It is interesting to know that our friends Parke, Davis & Co. introduced the drug to the medical profession in the early 'eighties, and they have an interesting account of the drug in their 'Pharmacal Notes.'—W. H. Goss (Whitehaven).

Rare Opportunity for Employers!

We have received the following letter from someone in Alberta whose name is not on our books, nor on the register of chemists and druggists: "I am a 'Minor' man of 1906 but resident in Canada since, where I have lived nearly all my life. Would you be kind enough to let me know what is about the standard rate of pay for qualified drug clerks and what demand there is for such help? I am a good dispenser and was counted proficient at the trade when in England. I would prefer something in a manufacturing or democratic country district in contradistinction to 'high-class' trade. I mean, while naturally polite, I don't want to go where it borders on servility." We advise the writer to seek a place in the next Canadian contingent.

Recording Angels!

"Naturally somewhat liverish, Mr. Pestle's temper was shorter than usual that morning, and the four representatives who called were not received at all graciously.

'Each victim of the good man's wrath suffered in silence, and went away with a sigh of resignation, but, when filling in the daily report to his firm, gave a neatly worded description of his reception.

At the present time, reposing among their fellows in the card-records of four most important firms, are four cards, each bearing Mr. Pestle's name and address and, among other information concerning him, the following:

- 'A very curt man.'
- 'Rather unmannerly.'
- 'Surly individual.'
- 'Will need tactful handling.'

'And before he is again visited by any of those representatives this black record is produced for their profit.

'Moral: Beware of your temper when travellers are about.'—*The Owl* (41/41).

In the Event of Conscription.

"Pharmaceutical chemists should certainly not be exempt. If all assistants and apprentices are taken, let establishments be closed during meal-hours, and principals do the best they can with whatever unskilled labour can be obtained."—*H. Todd* (Belfast).

The note in last week's issue of the *C. & D.* regarding the Pharmaceutical Society securing exemption of chemists and druggists from conscription, should that become necessary, is timely. It is certainly the duty of the Society to take immediate action to have this accomplished, but to my mind there is another body upon whom lies an even more imperative duty—I mean Insurance Commissioners. Is it not their duty to see to it that panel chemists receive war badges for the services which they are rendering to their nation? Panel chemists are in effect Government servants, working under contract (together with their staffs, without whose aid these contracts cannot be fulfilled) and subject to an act of the realm, as witness "National Health Insurance" on prescription and account forms supplied. The Insurance Act must be maintained, and only those who have been specially trained can maintain it, and the good health of the nation is a valuable auxiliary to the nation's resources. Moreover, chemists are giving a free service of dispensing to the dependants of men in the Forces. Is it, then, too much to ask that they receive like recognition as Civil Service members? I suggest that steps be immediately taken to secure war badges for the Government's "Pharmaceutical" evil servants.—*"Script"* (110/72).

Linimentum Terebinthine.

"I wonder if you could help me to a good working formula for lin. terebinth., B.P.? I have tried the B.P. method over and over again, and can never succeed in getting anything like a satisfactory emulsion until I have added at least 10 per cent. more water than ordered, and then, of course, my product is not B.P. I have had very much the same experience with the formula on p. 895 of 'Pharmaceutical Formulas' (W. A. Knight). In this case I had to add 20 per cent. more water before I got a white cream. I also note Lucas in 'Practical Pharmacy' says the only sure course is molecular proportions of oleic acid and liq. potassæ, but he omits the proportion of alkali needed, and the proportions of oleic acid to turpentine are not those of Mr. Knight's. Can you help in any way?"—*Lin. Terebinth.* (81/67).

[The formula for turpentine liniment has not been changed in the 1914 Pharmacopœia; it is the same as that in the 1898 edition. This indicates that the Committee of Reference has not had any ground of complaint against it. It is the case, however, that some makers of the liniment experience the same difficulty which our correspondent has encountered, though the majority, so far as our information goes, find the B.P. formula satisfactory. We have never had any difficulty in preparing a liniment of

a nice creamy pouring consistence by following the official directions. The soap used has something to do with the result obtained, and we are inclined to suppose that the water used accounts for some of the undesirable effects resulting. Distilled water only should be used, and the soap should really be dissolved before adding the turpentine and camphor. We think the very best result is expeditiously obtained by working on the lines of the domestic method of making furniture-cream from turpentine, beeswax, soap, and water. Dissolve the soap in the specified quantity of water by means of heat on a water-bath; place the turpentine, in which the camphor is dissolved, in a bottle, and add to it in successive portions the solution of soap, shaking after each portion has been added; finally add water to produce the required volume. The liniment prepared in this way is quite B.P., as it is only the manipulation which has been modified. Formulas such as Knight's scarcely comply with the B.P. directions.]

Dispensing Difficulties and Notes.

Readers are advised to consult "The Art of Dispensing" in regard to compounding difficulties. We welcome fresh problems and invite the co-operation and correspondence of dispensers in their elucidation.

Asafetida-and-Kermes Pills.

SIR.—The following prescription gave some difficulty, and I shall be glad to hear from others as regards excipient, etc.:

Kermes	...	...	...	1 gram
Ext. hyoscyam.	...	...	...	1 gram
Gum. acaciæ pulv.	...	...	...	6 grams
Asafetidæ (pulv. used)	...	...	...	6 grams

Ft. pil. 60.

Kermes is made by boiling black antimony sulphide with sodium-carbonate solution (see Martindale, "Extra Pharmacopœia.") Glucose was used, which seemed to soften the mass nicely for making good pills, but this became so hard in a very short time that the mass could only be rolled with difficulty.

B. A. STEVENSON (Nottingham).

[Following the prescription, we have not experienced any difficulty in compounding the pills. Probably use of powdered asafetida was the cause of Mr. Stevenson's trouble, as commercially it is a variable article. Using asafetida in mass corresponding to the B.P. description, we have obtained a satisfactory pill-mass with about 2.50 grams of syrup of glucose as excipient; also with the same weight of an excipient composed of 2 parts of syrup of glucose and 1 part of glycerin. Both lots of pills retained their plasticity and shape for about a week.]

Morphine in Mixture.

M. F. H. (E255/15) finds that the following mixture gives a precipitate on standing:

Sod. bicarb.	...	...	...	gr. v.
Liq. morph. hyd.	...	...	...	my.
Ac. HCN dil.	...	...	...	miss.
Tr. card. co.	...	...	...	℥xv.
Aq. ad	...	...	...	℥ss.

Why?

[A precipitate always occurs in mixtures containing an alkaloid and pharmacopœial compound tincture of cardamoms. Cinnamon-bark, which is a constituent of the tincture, yields to it some tannin, which is a precipitant of alkaloids. The precipitate is more copious in an acid than in an alkaline mixture, owing to the acid throwing down some of the colouring-matter of the tincture. Precipitation in the mixture compounded from the above prescription should occur. If it be not essential for the purpose that the compound tincture of cardamoms be strictly pharmacopœial, use the tincture without cinnamon-bark and an equivalent of oil of cinnamon. Distilled water must be used; hard water would probably produce a precipitate of its own.]

Phenazone and Salicylate.

Kindly let me know the best way of dealing with the following prescription:

Phenazoni	...	...	...	℥iss.
Sodii salicyl.	...	...	...	℥ij.
Mag. sulph.	...	...	...	℥iv.
Spt. ætheris nit.	...	...	...	℥iv.
Aq. menth. pip. ad	...	...	...	℥viij.

F. H. H. (79/8).

[You do not indicate the reason for your inquiry. It helps us when inquirers acquaint us of the nature of the difficulty they have experienced and measures which they have tried to correct it. The mixture, when compounded according to the prescription, very soon assumes a green

colour characteristic of the reaction between phenazone and sweet spirit of nitre in a solution with an acid reaction, and there may be a slight granular deposit. When the mixture is, at the time of compounding, rendered slightly alkaline with sodium bicarbonate the green colour does not appear, but a crystalline deposit soon begins to form, and increases in quantity from day to day until it is a considerable amount. This appears to be salipyrin, a substance but slightly soluble in water. If the three solids be triturated together with about 2 fl. oz. of peppermint-water and allowed to stand for a few minutes, a light, white precipitate is obtained which requires all the remaining peppermint-water to form it into a creamy mixture, and to this the sweet spirit of nitre, rendered alkaline, can be added, and the mixture dispensed with a "shake" label. At summer temperatures the first mixture, apart from the green colour, is quite right. The green colour does indicate a dangerous change. The second will not do at any time. The third, on the whole, is probably the best to send out.]

Legal Queries.

The majority of difficulties in regard to trade law are explained in the legal section of "The Chemist and Druggist Diary," 1915, beginning on page 405.

W. E. B. (108/66).—The insurance company should be communicated with in regard to the change desired in the insurance policy.

Country Chemist (102/46).—Considering all the circumstances of the case we think you are entitled to get the goods at the prices quoted by the traveller when you gave him the order.

W. N. (86/9).—It has been held that places of business where orders for excisable liquors are received for delivery from the headquarters of the owners must be licensed. You should not, therefore, take orders for wines at the unlicensed branch shop.

E. D. H. (109/27).—As far as we can judge from your statement regarding the lease, the conservatory is part of the premises rented by you, and, unless the lease contains specific exemption from repairs of the conservatory, you are responsible for its upkeep according to the terms of the lease. Your letter was accompanied by an unstamped addressed envelope. We do not as a rule reply to queries by post.

Miscellaneous Inquiries.

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas of them. When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how.

We do not as a rule repeat information which has been given in this section during the past twelve months, but give the reference to the issues in which the information may be found. If querists cannot refer to these they may obtain the numbers from the "C. & D." Office at the published price, usually 6d.

Camul (90/69).—OBSCURING BICYCLE-LAMP.—See *C. & D.*, January 9, p. 60.

T. G. H. (107/38).—For comfrey in stomach-cough see *C. & D.* Supplement, May 1. Infusum vel mucilago symphiti (Martindale) is made of coarsely powdered root 1 oz. and boiling distilled water 20 oz. Infuse for twenty minutes, strain, cool, and add chloroform 1 in 500. Dose, 1 to 2 oz. For formula for a decoction of the root see *C. & D.*, June 8, 1912, p. 46. Dose, sj . every four hours. The leaf sent is that of comfrey, but care must be taken to distinguish between *Symphytum officinale* (purplish flowers and non-tuberous roots) and *Symphytum tuberosum* (yellowish flowers and tuberous roots). The former is the plant to use.

Alpha (83/12).—WARBLES IN CATTLE.—The warbles must be squeezed out and destroyed, the wound being afterwards dressed with ung. hydrarg. or by applying black oil with a feather. The black oil is made as follows:

Turpentine	...	...	...	1½ oz.
Sulphuric acid	...	...	...	2 dr.
Linseed oil	...	...	...	10 oz.

Add the acid very carefully and slowly to the turpentine in a jar, and when the chemical reaction has ceased add the linseed oil.

G. D. M. (97/53).—(1) WORM-POWDERS FOR HORSES:

Antim. potass. tart.	...	...	3iss.
Ferri sulph. exsicc.	...	...	3iss.
Pulv. gentianæ	...	...	3ij.
Pulv. anisi	...	...	3ij.

Misce et divide in pulv. xij.

Give one powder twice daily in the food. When all have been taken, administer a worm-drench, such as the following:

Ol. terebinth.	...	...	3ij.
Sp. æth. nit.	...	...	3ij.
Ol. lini	...	...	Oj.

This is one dose.

(2) WORM-POWDERS FOR DOGS:

Pulv. arecæ	...	...	gr. x-lx.
Hydrarg. subchlor.	...	...	gr. ss-ijj.
Antim. potass. tart.	...	...	gr. ss-ijj.

One powder to be given fasting, and followed up with a dose of castor oil.

J. M. C. (89/27).—FLY-APPLICATION.—To prevent flies from settling on cattle the following is useful:

Paraffin oil	...	...	1 pint
Soft soap	...	...	1½ lb.
Soft water	...	...	2 gals.

Dissolve the soap in half the water, and mix in the paraffin oil; then add the rest of the water. The application, when further diluted, is sponged on the animal's body.

Merriek (84/49).—BISMUTH BANDAGES.—These are made by impregnating bandage-material either with a mixture of equal parts of bismuth subnitrate and starch, the procedure being similar to that adopted in making plaster-of-Paris bandages, or the bismuth is employed mixed with albumen as follows:

Dried egg-albumen	1 part
Water	20 parts

Dissolve, and add—

Bismuth subnitrate	10 parts
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Rub to a smooth cream, and add—

Water	30 parts
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Hexamine (86/51).—PERMANGANATE HAIR-DYE.—This is used for blond hair where silver dyes are inadmissible. The formula is:

No. 1 Bottle.

No. 2 Bottle.

Potass. permang.	...	3ss.	Sodii hyposulphit.	...	ʒj.	
Aquæ	5j.	Aquæ	...	5j.

Apply No. 1 first, and when dry use No. 2.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," May 15, 1865.

Legislation Affecting Chemists and Druggists.

From the cauldron of legislation Bill No. 3 will soon arise. What form will it take? Will it present itself as an armed head, or as a child bearing an olive-branch? In other words, will it give the Pharmaceutical Council despotic power over the whole trade, or will it fuse the two sections of the trade into one homogeneous body? While this article is being printed, the leading members of the Pharmaceutical Society are giving evidence in favour of their Bill. We trust they will be brought to see its defects, and that they will not allow private interests to obscure public duty. The Pharmaceutical Council have now the opportunity for winning the confidence of the trade and the public. Will they take advantage of it, or will they persist in claiming the right to register men from whom they withhold the privileges enjoyed by unexamined members of their own Society? Leaving the unexamined members out of the question, the fact that the Council are now registering men in business as full-blown "pharmaceutical chemists," without subjecting them to a more severe test than they propose for future "registered chemists," proves the injustice of their measure. It is not unlikely that the Select Committee will commit the registration and examination of chemists to the Pharmaceutical Council, but it is very unlikely that they will reject the just claim of the chemists to be represented in the Council. We publish a lengthy report of the proceedings of the Medical Council to remind our readers that other ingredients will be cast into the cauldron of legislation besides those furnished by the Pharmaceutical and United Societies. The medical body must add a few demands to the pretty mixture of claims, pretensions, and interests before the Select Committee.

PEARS

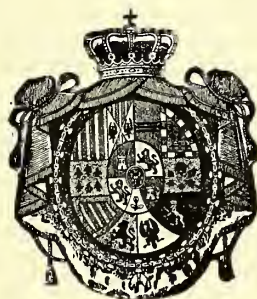


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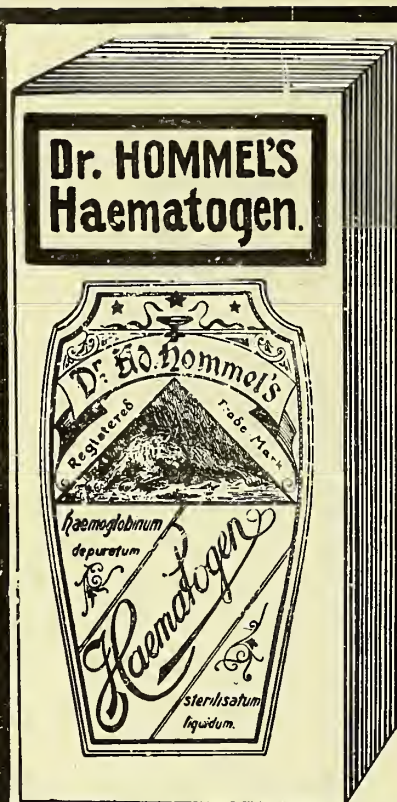
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 "Salicyl. pulv. 1 lb. @ 9/6 lb.
 "Tart., cryst. or pulv. B.P., 1885, 7 lbs. @ 1/10½ lb.; parv. 4d. lb. extra.
 Adeps Benz., B.P., 28 lbs. @ 9d. lb.; 7 lbs. @ 10d. lb.
 Aloes, Socot., 7 lbs. @ 1/5 lb.; powder, 7 lbs. @ 1/6 lb.
 Ammon. Brom. P.B., 7 lbs. @ 5/6 lb.
 Amyli Pulv., 10 cwt. @ 1/- cwt.; 2½ cwt. @ 1/8 cwt.; 1 cwt. @ 18/6 cwt.
 Antim. Nig. Pulv., 1 cwt. @ 7/- cwt.; 14 lbs. @ 79/- cwt.
Bals. Copaiba, pure, 44 lbs. @ 1/10 lb.; 9 lbs. @ 2/1 lb.; 1 lb. @ 2/5.
 "Tolut. B.P., 50 lbs. @ 2/7 lb.; 1 lb. @ 3/1 lb.
 Bismuth. P.B., Carb., 7 lbs. @ 1/10 lb.; 3 lbs. @ 12/2 lb.; 1 lb. @ 12/6 lb.; subnit. 1/- lb. less.
 Borax, 1 cwt. @ 25/6; powder 1/- extra.
Caffeine, P.B., 1 lb. @ 19/3 lb.
 Caffeina Cit., B.P., 1 lb. @ 14/6 lb.
 Camphor, English Flowers, "not artificial," 5 lbs. @ 2/4 lb.; ¼ oz. or ½ oz. 7 lbs. @ 2/6 lb.; Crude, good white, about 92% as imported, 140 lbs. @ 1/9½ lb.; 28 lbs. @ 1/10½ lb.
 *Chloroform, pure, B.P., 12 8-lbs. @ 1/11 lb.; 8 lbs. @ 2/- lb.; 6 1-lb. bot. @ 2/2 lb.
 Cocaine Hydrochlor., B.P., 4 ozs. @ 16/6 oz.; 1 oz. @ 17/- oz.
 Codeina, 1 oz. @ 25/6 oz.; Phosph., 1 oz. @ 21/- oz.; Hydrochlor. or Sulph., 1 oz. @ 22/- oz.
 Cream of Tartar, 98% powder, 1 cwt. @ 167/- cwt.; 7 lbs. @ 1/7½ lb.
Emp. Spread, 12 yards x 16 ins. adhesive, 3/8; Bellad. B.P.C., Green @ 17/6; Cerat. Saponis @ 7/6; Picis Co. @ 7/6; Plumbi @ 6/-; Resinæ @ 4/6; Roborans @ 7/-; Saponis, B.P., @ 6/-.
 Emp. Picis, P.B., 7 lbs. @ 8½d. lb.
 "Plumbi, P.B., 7 lbs. @ 8½d. lb.
 "Resinæ, P.B., 7 lbs. @ 8½d. lb.
 "Roborans, 7 lbs. @ 8½d. lb.
 Ess. Limonis (oil) original coppers, 12 lbs. @ 4/- lb.; 6 1-lb. bots. @ 4/6 lb.; not guaranteed absolutely pure.
 *Ext. Ipecac. Liq., P.B., 5 lbs. @ 21/6 lb.; 1 lb. @ 22/6 lb.
 Ext. Malti c. Ol. Jecoris, 10 lbs. @ 5½d. lb.
 Ext. Opit Solid, P.B., 1 lb. @ 58/- lb.
 Ext. Quassia, Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/4 lb.
 Ext. Sarsæ Co. Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/6 lb.
Ferri Ammon. Cit., P.B., 28 lbs. @ 2/10 lb.; 7 lbs. @ 2/11 lb.
 Ferri et Quina Cit., P.B., 100 ozs. @ 6½d. oz.; 25 ozs. @ 7½d. oz.
 Fomaldehyd., 40%, 4 cwt. barrels @ 64/- cwt.; 132 lb. cartons @ 69/6; 7 lbs. @ 10½d. lb.
Gallæ Cærrul. Pulv., 7 lbs. @ 1/- lb. [13/6
 Glycerine Extra, 5 lbs. @ 13/- lb.; 1 lb. @ 13/6 lb.
 Glycerin Opt. D.D., 1,260 P.B., 1 cwt. @ 106/- cwt.; 56 lbs. @ 108/- cwt.; 12 lbs. @ 1/2 lb.
 Gum Acaciæ, sorts, 3 cwt. @ 45/- cwt.; 1 cwt. @ 49/- cwt.; 7 lbs. @ 7½d. lb.; English Ground Powder, No. 1, 1 cwt. @ 110/-; 7 lbs. @ 1/2½d. lb.; No. 2, 1 cwt. @ 85/-; 7 lbs. @ 10½d. lb.
Hydargyrum, P.B., 10 lbs. @ 3/11 lb.; 1 lb. @ 4/2 lb.; Ammon., 28 lbs. @ 5/- lb.; c. Creta, 28 lbs. @ 1/7 lb.; Iodid. Rub. 28 lbs. @ 13/- lb.; Oxid. Rub., 28 lbs. @ 5/- lb.; Percblor., Lump, 28 lbs. @ 4/3 lb.; Subchlor., 28 lbs. @ 4/9 lb.; Sulph. c. Sulph., 28 lbs. @ 4/4 lb.; 7-lb. quantities 1d. lb. extra, 3-lb. quantities, 2d. lb. extra, 1-lb. quantities, 3d. lb. extra.
 Iodoform Pulv. B.P., 7 lbs. @ 18/6 lb.; 1 lb. @ 19/-
 Iodum Resub. B.P., 7 lbs. @ 16/6 lb.; 1 lb. @ 17/- lb.
Kamala, 7 lbs. @ 1/8 lb.; sifted, 3d. per lb. extra.
Lapis Pumicis, fine powder, 2 cwt. @ 8/- cwt.; 7 lbs. @ 1½d. lb.; lump, 2 cwt. @ 12/- cwt.; 7 lbs. @ 3d. lb.
 *Lin. Aconiti Meth., 5 lbs. @ 1/5 lb.; 1 lb. @ 1/8 lb.
 "Bellad. Meth., 5 lbs. @ 3/8 lb.; 1 lb. @ 3/11 lb. [1/1 lb.
 "Camph. P.B., 40 lbs. @ 1/- lb.; 9 lbs. @ 1/10 lb.; Ammonii Acetatis Conc. 1-7, 6 lbs. @ 8d. lb.; 1 lb. @ 1/- lb.
 *Ammon. Aromat., 6 lbs. @ 10d. lb.
 "Arsenicalis, B.P., 7 lbs. @ 4d. lb.; 1 lb. @ 7d.
 "Arsenii Hydrochlor., P.B., 7 lbs. @ 4d. lb.; 1 lb. @ 7d. lb.
 "Bismuth, P.B., 6 lbs. @ 1/5 lb.
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 "Easton, p.s. 1-3, B.P., 1 lb. @ 3/- lb.
 "Ferri Dialisatus, 6 lbs. @ 7d. lb.
 "Ferri Iod. p.s., 1-7, 1 lb. @ 7/10 lb.
 "Ferri Percblor. Fort., P.B., 7 lbs. @ 4½d. lb.
 "Ferri Phosph. Co. p.s., 1-7, 7 lbs. @ 1/6 lb.
 "Hamamelidis, B.P., 6 lbs. @ 1/1 lb.
 "Hypophosph. Co. p.s., B.P.C., 1 lb. @ 3/8 lb.
 "Plumbi Subacet., P.B., 7 lbs. @ 4d. lb.
Mag. Calc. Lewis, 56 lbs. @ 8d. lb.; 5 lbs. @ 10d. lb.; 1 lb. @ 1/- lb.
 Mag. Calc. Pond., 7 lbs. @ 1/10 lb.; 1 lb. @ 2/- lb.
 Morphine Acet. Hydrochlor. or Sulph., Pulv. B.P., 25 oz. @ 14/- oz.; 16 oz. @ 14/3 oz.; 8 oz. @ 14/6 oz.; 1 oz. @ 15/3 oz.; Pur. Præcip. Bimconate or Tart., 1 oz. @ 18/3 oz.
Napthalene Candles or B lls, 1 cwt. @ 25/- cwt.; 56 lbs. @ 27/6 cwt.; 28 lbs. @ 29/6 cwt.
Ol. Amygdal. Ang., B.P., 9 lbs. @ 2/11½ lb.
 Ol. Anisi, E.L., 66 lbs. @ 4/1 lb.; 16½ lbs. @ 4/6 lb.; 4½ lbs. @ 5/- lb.; 1 lb. @ 5/6 lb.
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 Ol. Ricini Alb. Opt. Medicinal, 44 lbs. @ 62/6 cwt.; 9 lbs. @ 8½d. lb.; for export, 1 cwt. drums recommended, 9/6 each extra.
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 Ol. Santal. Flav. Ang. B.P., 5 lbs. @ 25/- lb.; 1 lb. @ 26/- lb.
 Ol. Sassafras, genuine, 28 lbs. @ 3/8 lb.; 1 lb. @ 4/- lb.
 Opium Turc. B.P., 14 lbs. @ 25/6 lb.; 3 lbs. @ 26/- lb.; 1 lb. @ 27/- lb.; powder, 6d. lb. extra.
 Oxymer Scilla, B.P., 5 cwt. @ 36/- cwt.; 1 cwt. @ 40/6 cwt.; *7 lbs. @ 7½d. lb.
Papain, 1-80, 1 oz. @ 1/9 oz.
 Paraffinum Durum, B.P., 7 cwt. @ 3½d. lb.; 1 cwt. @ 3½d. lb.; 56 lbs. @ 3½d. lb.; 7 lbs. @ 4½d. lb.; Molle Flav., B.P., 3½ cwt. @ 23/6 cwt.; 1 cwt. @ 33/- cwt.; 28 lbs. @ 4½d. lb.; 7 lbs. @ 5d. lb.; Alb. B.P., 3½ cwt. @ 66/- cwt.; 8 lbs. @ 8½d. lb.
 Pepsin, B.P., 1 lb. @ 12/- lb.
 Phenazone, P.B., 1 lb. @ 30/- lb.
 Potas. Acetas. Gran. P.B., 28 lbs. @ 1/5 lb.; 7 lbs. @ 1/6 lb.
 Potas. Bicarb. Pulv., 1 cwt. @ 72/- cwt.; 7 lbs. @ 9d. lb.
 Potass. Brom. P.B., 7 lbs. @ 5/8 lb.
 Potass. Cit. B.P., 7 lbs. @ 3/- lb.
 Potass. Iod., P.B., 14 lbs. @ 13/6 lb.; 3 lbs. @ 14/- lb.
 Potass. Permang., Cryst., 7 lbs. @ 1/10 lb.
 Quinine Sulph., B.P., 100 oz. @ 1/4 oz.; 25 oz. @ 1/5½ oz.; 10 oz. @ 1/6 oz.
Saccharin., 7 lbs. @ 35/6 lb.; 550 or 500 1 lb. @ 37/6 lb. .330 7 lbs. @ 34/- lb.; 1 lb. @ 35/6.
 Sacchar. Ust., 1 cwt. @ 30/- cwt.; 10 lbs. @ 4½d. lb.
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 Salol, B.P., 1 lb. @ 14/- lb. [2/4 lb.
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 Santoniuum, P.B. 8 oz. @ 16/5 lb.
 Soda Caustica, 28 lb. tins @ 8½d. lb.; 6 1-lb. bots. @ 10d. lb.
 Soda Cit., B.P., 3 lbs. @ 3/2 lb.
 Soda Sulphite, Recryst., 1 cwt. @ 17/6 cwt.; 7 lbs. @ 4d. lb.
 Soda Sulphocarbolas, B.P., 7 lbs. @ 1/10 lb.; 1 lb. @ 1/1 lb.
 Sodii Bromid., P.B., 7 lbs. @ 3/4 lb. [cwt.
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 Sodii Salicyl. Pulv., 4 lbs. @ 13/- lb.
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 *Scilla, P.B., 7 lbs. @ 6½d. lb.
 *Senna, P.B., 7 lbs. @ 10d. lb.
 *Tolut., P.B., 7 lbs. @ 9d. lb.
Ung. Acid. Boric, P.B., 28 lbs. @ 7½d. lb.; Flav., 28 lbs. @ 5½d. lb.
 "Hydargyri, B.P., 28 lbs. @ 2/1 lb.; 7 lbs. @ 2/3 lb.
 "Hydargr. Ammon., B.P., 28 lbs. @ 1/- lb.; 7 lbs. @ 1/3 lb.
 "Hvd. Nit. Dil., 7 lbs. @ 10d. lb.
 "Resinæ, P.B., 28 lbs. @ 1/- lb.; 7 lbs. @ 1/1 lb.
 "Sulphuris, B.P., 28 lbs. @ 9d. lb.; 7 lbs. @ 10d. lb.
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Zinci Oleat. Powder, B.P.C., 7 lbs. @ 2/- lb.
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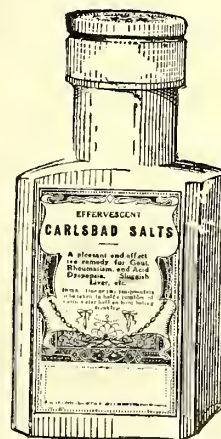
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" Anisi " ...	4/- "	" Sambuci Conc. ...	8/6 "	" Pulegii " ...	4/- "
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P.A.T.A. Protected Lines, bearing a very large Pro-
tected Retail Profit, which sell freely and are well
known and valued by the Public in many parts of
the country.

	Protected Retail Price.	Dozen Net.
* LOSALL'S SALT (well advertised), tins	6d.	3 6
* " " " " " "	1/-	7/-
* " " " " bottles in cartons	1/6	10/6

* Losall's Salt sells so well, surely it
must pay Pharmacists to stock such
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LOSALL'S COMPOUND SULPHUR SOAP.

A valuable emollient medicated skin
soap, especially suitable for use in Eczema } 1/- 8/-

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Losall's Salt, &c., will, on application direct to
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account open with the Firm.

**SPECIAL TERMS ARE OFFERED FOR
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THE
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M. PASTEUR
TO BEAR HIS
NAME IS

The PASTEUR- CHAMBERLAND FILTER

MEDICAL PRESS COMMENTS

The only filter giving
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The acknowledged
Standard Filter.

A real preventive of
water-borne disease.

The only filter the
Profession can re-
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The Filter is made in a variety of patterns
for attachment to the main, for table use,
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'The Lancet' says: 'Of Standard Purity'

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Gentlemen—
For years I took

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is cheap. For 2d. you can make a gallon of the most wholesome and invigorating beverage you ever tasted.

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SOAP & CHEMICAL BOILING PANS
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No 1 Plant for Experimental purposes

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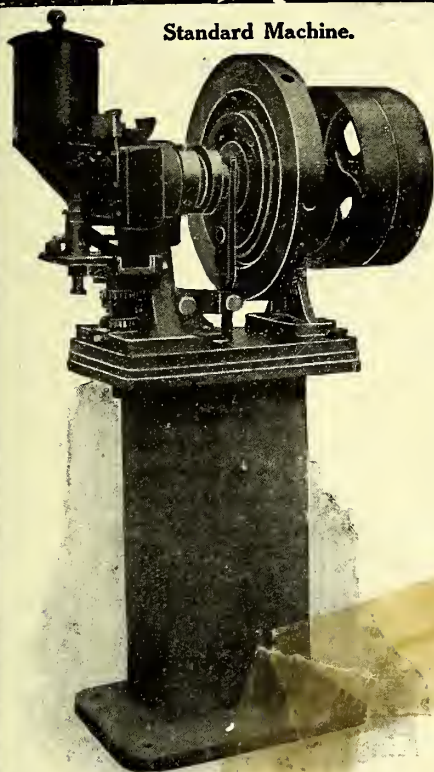
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Distilling Apparatus.

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Clip Fastener

Foot-Power

SPECIFICATION

Capacity per minute	20 to 25
Bench space	5 in. × 5 in.
Net weight	...	...	...	11 lb.
Gross weight	...	...	...	16 lb.
Boxed for export	...	9 in. × 10 in. × 11 in.		

This machine is designed to fasten clips to tubes in all sizes from the smallest to 1½ inches in diameter. The tension applied to the clip is adjustable at will, and is obtained by turning a thumbscrew. When once adjusted every clip will be applied to the tube in a uniform manner. The fastener is simple in construction, with no complicated parts to cause trouble, and its easy adjustment makes it very effective in operation.

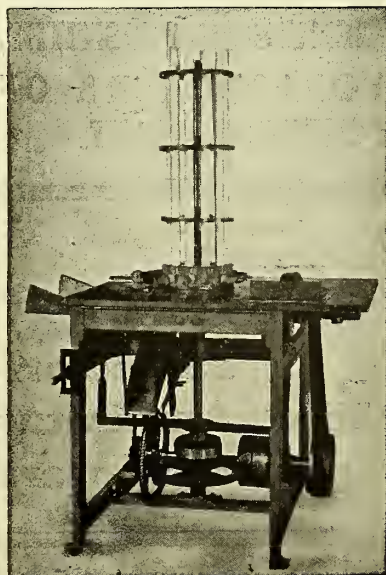
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Complete Plant for all kinds of Synthetic Drugs and Chemicals of Copper, Steel, Aluminium, etc., homogeneously lined with Lead, Silver, Tin, Nickel, etc.

Vacuum Pans and Dryers and Vacuum Stills for all purposes.

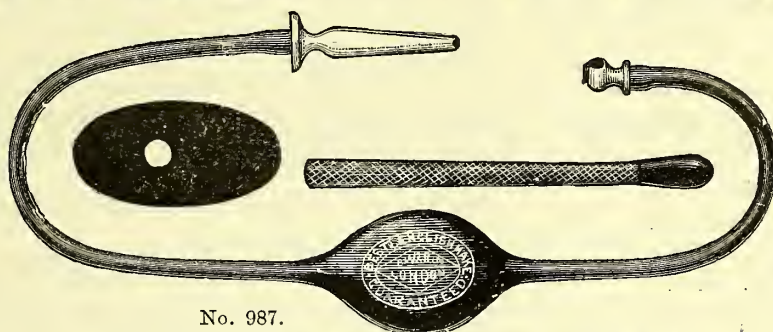
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Why not add to your income without trouble and without extra stock? There must be many among your customers who, known to you, wear an **ARTIFICIAL LIMB** or other **APPLIANCE**. Advise them to come to us. We are makers of the highest class of Limbs and Appliances, and no time or effort is spared to make each case a success. Simply send us a card to say that you have mentioned our name to Mr. or Mrs. _____, of _____, or send their name and address, and we will forward them a catalogue. In either case, should business result, we credit you with a substantial commission from 10 to 25% according to the nature of instrument supplied, and a cheque is sent on the 1st of the month following. We should be pleased to supply you with catalogues, in English, French, or German, for distribution, and give any information you may require.

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Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Oesophageal Instruments. Horse Catheters and Cattle Probangs. Wholesale and Export only. Price List from the Manufacturers.

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3 oz. (7½d. size) ...	5/6	5/3	3 oz. (2/9 size) ...	2/6	24/-	16 oz. (11/- size) ...	10/-	8/-
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DENTISTRY (Mechanical).EXPERT WORKMANSHIP. POPULAR PRICES, PROMPT SERVICE.
GUARANTEED MATERIALS. POSTAL ADVICE AND AID."Dentistry for Chemists," post free. "Everyday Dentistry," 3s. 6d.
Complete Outfits for Stopping Teeth (with Instructions), 2s. 2s. 6d.Sole Agents for **WARD'S LOCAL ANÆSTHETIC.**
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SHADEINE**

FOR COLOURING GREY HAIR.

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4/- per doz. ; 8/6 size, 28/- per doz.**58 WESTBOURNE GROVE, LONDON, W.****WILL VERNON & SONS***"Lister" Surgical Dressing Factory,*
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Absorbent Lint, Cotton Wool, Bandages, Wood Wool, etc.

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Prices. Endless variety of Tobacconists' Fancy
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The Highest Awards given to any Cotton Wool or Lint Manufacturers.

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**1/-****NO MORE CORNS**

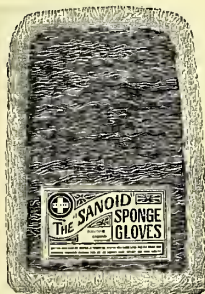
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BATH AND FLESH GLOVES.***Made on our Premises.***" LOOFAH."****" TURCO."****" FANCY."**

				Per doz. pairs.					Per doz. pairs.
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" "	turco bound	10/6	" "	thick	3/3
" and turco	7/-	" "	extra thick	5/-
" and fancy turco	7/6	Fancy striped blue and red squares,	3/9
" and calefacio	7/6	" blue and red diagonal squares	4/-

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May, Roberts' Traveller.

No. 4023 CITY.

MAY 29, 1915

LONDON & DUBLIN.

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Linen-faced, Superior Quality in White, Blue, Heliotrope, and Dove Grey.

Notepaper 1 lb. packets.

Sizes, Post 8vo (7 x 4½) and Duchess 6 x 4½.

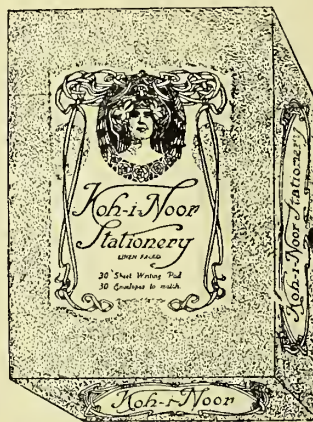
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In two distinctive shades, Pearl White and Sea Blue. Post and Duchess Sizes.

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7, 9 & 11 Clerkenwell Road,
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AND AT 16 WESTMORELAND STREET, DUBLIN.

THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

SATURDAY, MAY 29, 1915

TO ADVERTISERS IN THIS SUPPLEMENT.

The Publisher desires to make it clear that advertisements of Businesses for Disposal and Wanted, Situations Open and Wanted, Exchange Column, &c., **MUST BE PREPAID** (except in the case of serial advertisers), and to ensure prompt insertion **REMITTANCES MUST ACCOMPANY INSTRUCTIONS.**

Advertisements for the current issue cannot be received after 4 p.m. on Thursday in each week. If it is necessary to telephone or telegraph an urgent announcement this may be done

PROVIDED the MONEY is TELEGRAPHED

at the same time and the fact made clear that the money order is to be delivered at 42 CANNON STREET, LONDON, E.C. Advertisers will assist greatly in the preparation and quick despatch of the Supplement by making careful note of these rules. Telephone: No. 3617 Central (3 lines). Telegraphic Address: "Chemists Cannon London." (Three words counted as two.)

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Telephone Number: City 2283.

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2.—MIDDLESEX (Within Easy Distance of Town).—Retail and Dispensing; very profitable, middle-class Business; returns £1,500; will bear the fullest investigation; modern-fitted shop and convenient house; valuation and small premium for goodwill.

3.—LONDON, W.—High-class Dispensing and Retail Business; established many years, and held by vendor upwards of 40, now retiring; returns £1,300; net profit £400 (proof given); very good house; price about £1,250.

4.—EPPING FOREST (Near).—Ready-money Business; returns about £1,000 yearly; net profit £300; rent £35; price £320, or £80 goodwill, stock and fixtures at a fair valuation.

5.—SYDENHAM.—Middle-class Retail and Dispensing Business; returns about £940; very good profits; shop well fitted and stocked; all open to inspection; convenient house, held on lease; very moderate terms offered to an immediate purchaser.

6.—LONDON, S.W.—Good-class Business, Retail and Dispensing, situate in attractive residential locality; returns last year £1,287; net profit 25 per cent.; well-fitted shop, fully stocked; terms, goodwill £200, stock and fixtures at a fair valuation.

7.—MIDLANDS (Inland Health Resort).—For immediate Disposal, old-established Business, Light Retail and Dispensing; returns between £400 and £450; excellent opening for extension; stock and fixtures estimated at £556; price £200.

8.—HANTS (Health Resort).—Old-established Business, essentially Dispensing and good-class Retail; returns about £2,500; the shop is handsomely fitted, and is situate in one of the principal streets; terms, valuation of stock and fixtures; illness cause of sale.

9.—CORNWALL (Death Vacancy).—Retail and Dispensing, with Agricultural connection; returns last year £1,050, formerly £1,300; net profit £250; excellent residence; rent £65; price £475.

10.—CHESTER (Within Easy Distance of).—Branch Business; no opposition; returns average £10 per week, at fair prices; rent moderate; price £250; part payment entertained.

11.—KENT.—Unopposed Country Retail, Dispensing, and Agricultural Business; steadily increasing returns, now about £600; net profit £212; roomy house, with garden and grass land; price £350.

12.—GREAT WESTERN MAIN LINE.—Retail and Dispensing Business of good class, including small Mineral-water Manufactory on the premises; returns £1,000 yearly; net profit £200; valuation terms entertained.

13.—LANCS.—Ready-money Business; established many years; returns, under Assistant, £11 per week; net profit £160; price £220, or valuation of stock and fixtures.

14.—SURREY.—Retail and Dispensing Business; returns, present rate, £2,000; modern shop, well fitted and attractive; terms, valuation of stock and fixtures and £125 for goodwill.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

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4.—LOWESTOFT (Death Vacancy).—Very profitable Cash Retail, with valuable Proprietaries; returns £1,000; central position; plenty of scope; price £500, or near offer.

5.—HOME COUNTY (Popular Seaside Resort).—Good-class Business; increasing; returns over £20 a week; excellent profits; fine house and Pharmacy; price for quick sale about £600.

6.—SOMERSET (Thriving Market Town).—Good Family Retail and Agricultural; returns £1,100; low rent; excellent house; modern Pharmacy; price £600; £400 can remain.

7.—SUSSEX COAST.—Unopposed; returns over £800; net profit £250; central position; good house; price £500.

8.—SOUTH WALES.—Cash Retail; returns £1,236; net profit averages £350; good position; price £500, or valuation.

9.—KENT.—Unopposed Light Country Retail; returns about £600; net profit £203; splendid house, garden, etc.; price £350.

10.—YORKS.—Cash Retail; returns about £500 under manager; net profit £185; rent £20; price £175.

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EASTERN COUNTY (County Town).—£250 cash; first-class Family Retail and Dispensing, in best residential locality; returns over £800, scope for much more; sole cause of sale, taken Government appointment; price £350; £100 could remain; must sell at once. "M. E. T." (94/021), Office of this Paper.

ESSEX.—Ready-money Business; returns about £750, with net income of £250; owner, being compelled to sell on account of illness, is willing to accept valuation of stock and fixtures and small premium for goodwill; applicants should be prepared with £225 cash. "Ipecac" (113/38), Office of this Paper.

LONDON, N.—Lock-up Branch; handsomely fitted; well stocked; opened 9 months; high-class residential district; plenty of scope; splendid opening for beginner; reasons for Disposal, management trouble and ill-health; price £300 net cash, less than cost, a bargain. 93/40, Office of this Paper.

LONDON, S.W.—High-class suburban Business on main road; returns for 1914, £1,450; price valuation, no goodwill; lease 17 years to run; insured for £1,000 against all war risk; investigation necessary before full particulars are given. Write to arrange appointment to "Come and Buy" (107/67), Office of this Paper.

LONDON, WEST.—Good Family and Retail Business; turnover £1,100; rent £90; let off £84; for immediate Disposal; owner going abroad; reasonable price. 90/15, Office of this Paper.

MIDLANDS (Death Vacancy).—Dispensing and Retail Business; stands in splendid corner position; main business thoroughfare; well-fitted Pharmacy; commodious residence; returns about £800; an energetic man could double trade; about £600 required; full investigation offered. Apply, 113/038, Office of this Paper.

MANCHESTER.—Chemist's Business or Stock and Fittings for Removal; good thoroughfare; large elegantly fitted shop; polished mahogany wall and counter cases, dispensing screen, sponge case, cupboards, etc.; good house, separate entrance; accommodation for Wholesale; rent £50; at valuation or suitable offer (about £400). Apply "Manchester" (91/16), Office of this Paper.

NORTH OF ENGLAND (Charming District).—Good-class Retail, with Agricultural and very exceptional Proprietaries, having good sale, beyond own Retail, and capable of unlimited extension with more capital; every facility given and courted for testing the business; net profit approaches £600; goodwill £350 and valuation of stock and fixtures, estimated at about £2,000. "North" (113/032), Office of this Paper.

A RARE OPPORTUNITY.—A genuine, sound, money-making Chemist's Business, with Wine Licence and Optics, for Sale; owner going in for medical profession, so will accept first reasonable cash offer; turnover for 1914, £1,025; well stocked; long lease; good position. Apply, 91/19, Office of this Paper.

DEATH Vacancy.—The old-established Business of the late Mr. Venables for immediate Sale; reasonable offer accepted; good house and large double-fronted shop. Address, Mrs. Venables, The Station Pharmacy, Gorleston-on-Sea.

INLAND Health Resort.—Old-established Light Retail and Dispensing Business; good position, close to main thoroughfare; net profit £160; capable Window-dresser could do practically double; owner, taking larger, would make considerable sacrifice for quick Sale. Write for particulars to "D. H." (93/37), Office of this Paper.

MARKET Town (Within 20 Miles of London, real country surroundings).—Returns £1,600; net profit £400; good-class Retail, Dispensing, and Prescribing Business; same hands 12 years; family reasons cause of sale; best position in town; no goodwill; bare valuation, about £600, will purchase if done quickly; a real bargain. Address, "Sylvan" (94/21), Office of this Paper.

OWNER retiring from business (Yorkshire), having realised a sufficiency, offers privately his exceptional Business, showing an annual net profit of nearly £900; price £2,000; full details will be given upon exchange of references. "Solicitor" (113/302), Office of this Paper.

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UNOPPOSED Branch Retail, Cheshire; owner going abroad; exceptional opportunity for increase; present returns £500, without Patents or N.H.I.; price £250; part can remain; only requires seeing to decide you. "Cheshire" (113/32), Office of this Paper.

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RE W. S. SMITH, deceased, St. James' Road, Bermondsey. The Stock and Fittings of a Chemist, including Toilet and other Soaps, large quantity Proprietary Articles, Perfumery, Drugs, Patent Medicines, Pills, Toilet Preparations, Sponges, Druggists' Sundries, and Fancy Goods, also Wall-fittings, Counters, Show Bottles, Jars, Screens, Scales, etc. Mr. Frank G. Bowen will **SELL BY AUCTION**, at his rooms, 62a Aldersgate Street, City, on Thursday, June 3, at 1. On view day prior. Catalogues of the Auctioneer.

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LAST WEEK MAY 22 1915
NATURE OF ADVT. REPLIES

QUAL. MANAGER	25
REPRESENTATIVE	22
ASSIST?	10
YOUNG MAN	WHOLESALE 10

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RETAIL.

BLACKBURN.—Unqualified Assistant wanted for Wholesale and Retail business. Reply, stating age, salary required, and references, G. A. Critchley & Co., Pharmaceutical Chemists, 10 King William Street, Blackburn.

BRISTOL.—Junior, unqualified, with knowledge of Photography; exempt from military service; salary and commission. Apply, with full particulars, to Stokes, Chemist, Eastville, Bristol.

BRIGHTON.—Qualified or experienced unqualified Assistant for high-class Retail and Dispensing business; indoors; comfortable home. Full particulars, enclosing photo if convenient, to 93/6, Office of this Paper.

CAMBERLEY.—Assistant with good Dispensing experience required; outdoors. Full particulars to F. A. Cairns, Pharmaceutical Chemist, Camberley.

CITY.—Qualified Manager; energetic and reliable; good hours; no Sunday or night duty. Apply, with full particulars, to B. Hooper & Co., 43 King William Street, London Bridge, E.C.

xxviii THE CHEMIST AND DRUGGIST
DARTFORD.—Comfortable berth offered to trustworthy gentleman in a Light Retail business; lady with Dispensing experience would be considered; working hours 56 per week; duties will include morning work at a local Hospital. Please state salary (outdoors), West, Pharmacist, Dartford.

EASTBOURNE.—Junior or Improver; outdoors; reasonable hours. Full particulars re salary, experience, etc., to Veale, 45 Seaside Road, Eastbourne.

EAST COAST.—Assistant, with view to a partnership, to take the oversight of the Retail Counter; must be reliable, with good business abilities. Please state terms, age, experience, references, and what capital at command, enclosing photo if convenient, "Pharmacist," c/o British Drug Houses, Graham Street, City Road, London.

EXETER.—Good Dispenser; £2 weekly, bedroom provided; one not eligible for Army preferred. Give full particulars, experience, age, photo, etc., to Mr. Reid, Pharmacist, Exeter.

ILKLEY.—Wanted, unqualified Junior, with some knowledge of Photography. Apply, giving references, age, and salary required, to F. A. Wilcock, Chemist, Ilkley, Yorks.

LEAMINGTON SPA.—Lady Assistant (indoors) wanted at once to replace Junior who has applied for a Commission; must have had some experience in Dispensing and Photographic. Photo and usual particulars to Fisher & Co., Leamington Spa.

LIVERPOOL.—Junior Assistant required by June 21 for Light Retail with Dispensing; near School of Pharmacy. Apply, stating age, height, experience, and salary required (indoors), to Alder, 35 Granby Street, Liverpool.

LONDON (Central).—Outdoors; Junior Assistant for Dispensing and Counter work; good opportunity of learning French. Write, with full particulars, to Frizell & Co., 1 Cranbourn Street, Leicester Square, W.C.

LONDON.—Qualified man to Manage Branch; smart Salesman; not liable to military service; knowledge of French appreciated; permanency; outdoors. Apply, Cofman's Pharmacy, 6 Bloomsbury Street, W.C.

LONDON, N.—An experienced Assistant, also Junior or Improver; time off for attending lectures or study if desired; good opportunity to learn Dispensing. Apply (letter only, stating experience, names of references, salary expected (in- or out-doors), and when disengaged), "Chemist," 300 Amburst Road, Stoke Newington, N.

LONDON, N.W.—Wanted, for a good-class Retail and Dispensing business, an experienced Assistant, with knowledge of Photography and Window-dressing preferred. Apply, giving particulars of experience, and state salary required, to T. J. Evans, Pharmaceutical Chemist, 9 Royal Parade, Golder's Green.

LONDON, S.E.—Unqualified Assistant wanted (outdoors) for quick Cash business; close Thursday 1 o'clock; no Sunday duty. State age, experience, and salary required. Brooks' Drug Stores, corner of High Street, Broadway, Deptford.

LONDON, S.E.—Wanted, an experienced Assistant; good Dispenser and Counterman; permanency; outdoors. Apply, Rumsey, 481 Lordship Lane, S.E.

LONDON, S.W.—Junior Assistant, exempt from military service, for good-class business; outdoors; application from lady entertained. Full particulars as to experience, salary required, etc., to Neve, 10 Victoria Parade, Norbury, S.W.

LONDON, S.W.—Assistant, with Dispensing experience, required at once. State full particulars as to age, references, experience, and salary required (outdoors) to C. J. G. Bunker, York Street, Twickenham.

LONDON, S.W.—Wanted, for first-class Dispensing business, Senior Assistant; good all-round experience; salary £120, with furnished rooms and attendance. Apply, stating age and past experience, to "P. H. C." (23/30), Office of this Paper.

LONDON, W.—Maitland & Lindley have a vacancy for a Junior Assistant at the Dispensing Counter; where possible, apply personally; all applications by post will be answered. Address, 10 Chester Place, Hyde Park Square, W.

LONDON, W.—Capable Assistant, with Dispensing experience; outdoors. Write all particulars to save time to Harding, Chemist, The Avenue, West Ealing.

LONDON, W.—Qualified Manager required immediately for Light Retail and Dispensing business; permanency, with interest in the profits, offered to the right man. 901/32, Office of this Paper.

LONDON, W. and S.W.—Smart Salesman for divided duties; between West-End and suburban businesses; speaking French preferable; No Parcel work; outdoors; commencing May 31. Apply personally, Friday evening, 7 to 9, Saturday 10.30 a.m. to 3 p.m., afterwards by letter only, Swire & Co., 294 Brixton Hill, S.W.

LONDON, W.—Smart qualified Assistant wanted immediately; outdoors. Spink & Co., 27 Tottenham Court Road.

LONDON, W.—Competent Assistant required, accustomed to Dispensing; outdoors. Particulars of previous experience, age, height, salary, expected, and when disengaged to 84/4, Office of this Paper.

LONDON, W.C.—Wanted, Assistant (outdoors), accustomed to good-class Retail and Dispensing; qualified preferred. Burden & Co., Pharmacists, 41 Store Street, Bedford Square, W.C.

LONDON, W.C.—Unqualified Assistant required for first-class business; permanent and progressive berth. State age, when at liberty, and salary required, 91/320, Office of this Paper.

LONDON (West End).—Junior Assistant required; moderate hours; good experience to be gained; Continental experience an advantage. Apply, with full particulars, to Mellin's Pharmacy, 48 Regent Street, London, W.

MANCHESTER.—Junior for good-class Retail and Dispensing business. Full particulars of experience, age, height, and salary required to J. S. Breese, Pharmaceutical Chemist, Rusholme, Manchester.

MANCHESTER.—Junior Assistant wanted at once. State full particulars and salary required, Beal, Chemist, 446 Rochdale Road.

MIDLANDS.—Wanted as soon as possible, qualified Assistant for N.H.I. Dispensing and Counter; easy position; permanency with good prospects; no Sunday duty; elderly man not objected to. State age, wages required, and usual particulars, 92/40, Office of this Paper.

NEAR MANCHESTER.—Wanted, unqualified Assistant; outdoors; must be good Dispenser and Counterman. Full particulars and wages required, 95/26, Office of this Paper.

NOTTINGHAM (Near).—Reliable qualified man (outdoors) wanted immediately for small Mixed business; a permanency; good salary to the right man. Usual particulars, with salary required, to 92/19, Office of this Paper.

PORTSMOUTH.—Qualified man to Manage small business for widow; Wednesdays from 1 o'clock, and alternate Sunday duty from 6 to 10; would suit an elderly man wanting comfortable home. State lowest salary (live in or out), 91/34, Office of this Paper.

ST. LEONARDS-ON-SEA.—Assistant wanted (indoors) for Light Retail and Dispensing. State age, height, references, and salary required, enclosing photo, to T. W. Jones, 55 Bohemia Road, St. Leonards-on-Sea.

SHREWSBURY.—Qualified Assistant, and Junior Assistant, required (outdoors); easy hours; no extra duties; please give full particulars in first letter, and say when disengaged. Apply, A. Williams, Chemist, Castle Street, Shrewsbury.

SOUTH COAST.—Assistant required; experienced; permanency with good salary. Timothy White Co., Ltd., Chemists, Portsmouth.

SOUTH KENSINGTON.—Assistant wanted for Dispensing; also Assistant for making Galenicals, etc. Apply, personally or by letter, to "O. H. H.," c/o Topholme & Son, Pharmacists and Dispensing Chemists, 1 Coleherne Terrace, Earl's Court, London, S.W.

STAFFORD.—Smart, unqualified Assistant wanted at once; knowledge of Photography preferred; outdoors. State age and salary, J. & H. A. Averill, Pharmaceutical Chemists, Stafford.

TORQUAY.—Lady Assistant to take the place of Junior joined the Service; duties, keep the Stock and help Dispensing; indoors. Apply to C. Sloman, Southernhay Pharmacy, Exeter.

TORQUAY.—Assistant required, having good Dispensing experience. Apply, E. Quant, Torbay Pharmacy, Torquay.

WINCHESTER.—Qualified Manager wanted immediately; outdoors; permanency; easy hours; Cash business; abstainer preferred. State full particulars, with photo, salary required, etc., in first letter, Eldred & Inge, 155 High Street, Winchester.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Wanted, Assistant Dispenser; Minor qualification; salary £100 per annum, luncheon provided; hours 9 a.m. to 5 p.m. Applications, with recent testimonials and full particulars, to W. H. Harper, House Governor and Secretary, General Hospital, Wolverhampton.

A competent Assistant required, with all-round experience; Extractor; a permanency for suitable man. "T.," 29 Meskin Road, Dartford.

A Junior Assistant (indoors) for a Mixed Country business. D. Davies, Castle Pharmacy, Pembroke.

ABOUT Middle of June.—Assistant, unqualified, in- or out-doors, for Country business; short hours. Send full particulars to Parsons, Dental Chemist, Ilminster, Somerset.

AN Assistant for good Country business; no Sunday duty. State salary, references, etc., to F. Fresson, Pharmacist, Stevenage, Herts.

ASSISTANT with knowledge of Photography wanted for about four weeks, to commence early in June. Full particulars and when disengaged to Spicer, Chemist, Dorchester.

ASSISTANT wanted to replace one taking up military duties. Give usual particulars, Bird, Chemist, Coventry.

ASSISTANT wanted, as soon as possible; qualification preferred, but not essential; to sleep indoors. Apply, if by letter enclose photo (to be returned), to R. S. Starkie, 126 The Strand, W.C.

ASSISTANT; good Dispenser essential; easy hours: half-day weekly from 11.30. Age, salary required, and references to Secretary, Morley Industrial Co-operative Society, Ltd., Morley, Yorks.

ASSISTANT (Junior), 18 to 20 years, required for Light Retail and Dispensing; unqualified; weekly half-holiday; no Sunday duty; outdoors. State wages required and reference to Patterson, Pharmacist, 52 Ilford Lane, Ilford.

BRADLEY & BOURDAS require an Assistant for Dispensing and Stock: application from a lady would be entertained. Particulars to Mr. Bourdas, 6 Pont Street, S.W.

CAPABLE Junior Assistant, unqualified, for good-class Light Retail and Dispensing; indoors; time for study if desired. If writing, state usual particulars and enclose photo to G. Dauncey, 5 Nugent Terrace, St. John's Wood, N.W.

CHEMISTS.—Smart, qualified men, accustomed to quick Cash trade, required for branches in the North of England. Please state salary required, references, experience, and when disengaged, "Chemist," Taylors' Drug Co., Ltd., P.O. Box 141, Leeds.

COMPETENT, qualified Assistant wanted for first-class West-End Dispensing business; outdoors; staff of three. Apply by letter, enclosing photo, stating height and salary required, to 112/18; Office of this Paper.

DISPENSERS wanted.—Qualified civilian Dispensers now have the opportunity of performing useful work for the Army; salary 40s. per week, free rations, and accommodation in barracks or camp. Apply at once to the Surgeon-General, Headquarters, Southern Command, Salisbury.

ELDERLY qualified man required; easy hours; work light; permanency. State age, when at liberty, and salary desired, "Burton" (91/332), Office of this Paper.

EXPERIENCED Assistant required end of May for good-class Light Retail and Dispensing business; must be a reliable Dispenser; outdoors; no N.H.I. work. Apply, giving references, experience, and salary required, to J. W. Moorhouse, Pharmacist, Barnsley.

FOR high-class Dispensing business, Midlands.—Required, qualified or unqualified Assistant, about 25. Reply, with full particulars, stating salary required, etc., to 91/31, Office of this Paper.

FOR North London Suburb.—Vacancy for gentleman who is reading up for Minor or Major in good middle-class business and has had some experience, and will take charge in absence of principal for a few hours; time for study or recreation can be arranged. Write, "Sodii Cit." (113/2), Office of this Paper.

HENRY HODDER & CO., LTD., Bristol, have vacancies for two qualified and two unqualified Assistants, either permanent berths or as holiday relief, for about four months; outdoors; afternoon weekly; no Sunday duty; hours 8.30 to 8.30, Fridays to 9, Saturdays to 10. Give full particulars in first communication and name salary expected. Address, Managing Director, Hodders, Ltd., 5 Nelson Street, Bristol.

HOLIDAY Relief Assistant required in a pleasant country town for six weeks; June and July preferred; not required to manage; light duties in a Retail and Dispensing business; no other business duty. Apply, stating age, salary required, and giving references and usual particulars, to J. H. Herington, Pharmacist, Dunstable, Beds.

JUNIOR Assistant (unqualified) in a good-class business. Apply, with usual particulars, references, and salary required (indoors), to Hitchman & Son, Gold Street, Kettering.

JUNIOR or Improver; good-class business. Please state full particulars, salary (outdoors), etc., to Litchfield, Pharmacist, South Farnborough, Hants.

JUNIOR Assistant required for Dispensing, Counter, and Stock: reasonable hours; one whole day off each week; prepared to pay good salary to competent man. Apply, stating experience and salary required, to Gray, Pharmacist, Longbridge Road, New Barking.

JUNIOR Assistant (unqualified) required in a high-class Dispensing business in South Kensington; outdoors; must be of good appearance and address; Senior kept and duty divided. State age, height, and salary expected, with details of recent engagements, to the Proprietor, Tennant's Pharmacy, 29 Sussex Place, Queen's Gate, S.W.

LADY Assistant for good-class business, Dispensing and Counter. State age, experience, height, salary required, enclosing photo, which will be returned, Francis Hallam, Ltd., The Rexall Pharmacy, Burton-on-Trent.

LADY or gentleman, unqualified, for Light Retail and Dispensing business; indoors; or unqualified Assistant to live on premises. Apply, with photograph and references, to Wilson, Chemist, Portishcad, Som.

LADY Assistant wanted for Dispensing and General Retail; hours 9 a.m. to 9 p.m.; age 21-26. Please give full particulars, enclosing photo, or personal interview where convenient, to H. Southall, Pharmacist, Walthamstow, Essex.

LADY Assistant, with experience of Chemists' Dispensing, wanted at once in West-End Pharmacy. Apply, stating salary required and usual particulars, to "K." (113/47), Office of this Paper.

LADY Dispenser wanted; must have had some years' good experience. Apply, with photo, Ralph Cuthbert, Ltd., Huddersfield.

LOCUM (London, N.) for eight-weeks during July and August, or August and September, for Relief work during holidays. Please state full particulars and enclose photo to Long, Chemist, 155 High Street, Stoke Newington, N.

LOCUM.—Qualified man of experience required commencing June 14; permanency afterwards if satisfactory. "Locum" (91/32), Office of this Paper.

LOCUM, qualified (indoors), to take charge for three weeks; July preferred. Apply, by letter, Tabor & Cresswell, 138 High Street, Kingsland, N.E.

MANAGER wanted for Branch; Sight-testing and Surgical; permanency. State experience and salary required, Gray & Selby, Pelham Street, Nottingham.

MANAGER for new Branch shop, qualified; good opportunity for one with ability; easy hours; light work; comfortable situation. Please give full particulars as to age, salary required, etc., to The Staniforth Pharmacy, 90 Broomhall Street, Sheffield.

MANAGER or Locum wanted at once owing to death of proprietor. Exors. Cox & Son, Pharmaceutical Chemists, Grantham.

MANAGER for Drug Stores, London; young, married man with tact and energy to increase a business already doing well in main thoroughfare; fixed salary, share profits and bonus on increase of trade; no poisons sold; good opportunity for young man looking for a permanency. State age, experience, and salary, 91/22, Office of this Paper.

MESSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmouth, require a capable Pharmacist as Manager; easy hours; good and progressive salary, with excellent prospects.

PART-TIME.—London, E.—Capable Assistant required for evenings; permanent if desired. "Roman" (910/32), Office of this Paper.

PHOTOGRAPHY.—Wanted, smart Assistant; good Salesman, Window-dresser; one with knowledge of Lantern and Cinematograph work preferred; good salary; permanency and good prospects if suitable. Watson's, 84 High Street, Sheffield.

QUALIFIED Manager wanted, age about 30, for Liverpool district; must be steady, energetic, and capable, with thorough up-to-date business methods; proficient in Window and Counter display; must be prepared to modernise and extend business; good salary and commission to competent man. For further particulars apply, with reference and photo (if possible), in first instance to 90/3, Office of this Paper.

QUALIFIED Manager for Light Retail business; been well looked after; excellent opportunity for married man desirous of settling down; good agreement with interest in the profits offered; not far from London. 91/302, Office of this Paper.

QUALIFIED Assistant (outdoors), about June 3; also Lady Assistant for Bookkeeping and putting up Stock. Williams & Elvey, 8 West Halkin Street, S.W.

QUALIFIED Assistant wanted at once; in- or out-doors. Apply, giving full particulars, age, experience, salary required, etc., to S. Davis, Chemist, Chesham.

QUALIFIED Assistant wanted; middle-age man not objected to; also an Assistant. 220 Edgware Road, W.

REQUIRED, Manager, qualified, to take charge business in London; good neighbourhood; house rent free; steady, reliable man; abstainer preferred. Reply, giving full particulars, to 94/29, Office of this Paper.

SEASIDE.—Wanted, Assistant; in- or out-doors; one used to good-class Dispensing business; half-holiday weekly; easy hours; two kept. Apply, E. J. Challenger, The Rolle Pharmacy, Exmouth.

**CUTLER BOULTER DISPENSARY, OXFORD.
CENTRAL (WORCESTER STREET) AND EAST OXFORD
BRANCH (MARSTON STREET).**

THE Directors require a qualified Dispenser, who must possess at least the Minor qualification of the Pharmaceutical Society, for the above Institution.

Salary:

With residence, coal and gas, £90, rising by two annual increments of £5 to £100 per annum; or
Without residence, £120, rising by two annual increments of £5 to £130 per annum.

Applications, stating age and qualifications, and whether married or single, accompanied by not more than three recent testimonials, must reach me, the undersigned, on or before the 5th day of June, 1915.

HENRY F. GALPIN, Clerk to the Directors.

4 George Street, Oxford, May 11, 1915.

UNQUALIFIED Manager, Branch shop (lock-up), Fulham; middle-class trade; quick Counter trade evenings; reliable, trustworthy; permanency; immediate; must have good references from recent situations. State experience, references, and salary required, time for interview. Write, Goodall, c/o J. Scott, Sunnybank, Old Lane, Tatsfield, Surrey.

UNQUALIFIED Assistant (under 30) for Light medium-class Retail and Dispensing business; easy hours. State age, experience, salary required, etc., to R. Wood, M.P.S., 429 Oxford Road, Reading.

UNQUALIFIED Assistant; outdoors; no single man of military age need apply. Give full particulars in first letter, salary, references, experience, etc., Whittle, Chemist, Hednesford.

UNQUALIFIED; outdoors; easy hours; knowledge of Photography essential. Photo, if convenient. S. Edwards & Son, Pharmacists, Godalming.

UNQUALIFIED; age about 25; Counter and Dispensing, including N.H.I.; good-class business. State salary required and experience. Vince, Pharmacist, Lancaster.

W. MALDEN & CO., 205 Brompton Road, London, S.W., require an Assistant for good-class Dispensing and Retail business, where three are employed and duty divided; comfortable position with good prospects. Apply to Mr. Robinson at above address.

WANTED, a lady or gentleman indoor Assistant; unqualified; must be able to Dispense quickly and accurately, having a knowledge of Photography if possible; home comforts. Full particulars, Pelham Young, Pharmacist, Hounslow. Telephone, 153 Hounslow.

WANTED at once, an Assistant for a good-class Family and Dispensing business; indoors. Apply, with usual particulars, to P. Stacey, Ph. Chemist, 81 High Street, Teddington, S.W.

WANTED, for end June, qualified or experienced unqualified Assistant, capable of taking charge; lady or gentleman; elderly not objected to. Usual particulars to Chas. Hamson, Chemist, Peterborough.

WANTED, Second Assistant (two kept); knowledge of Photography, experience in Counter work, Dispensing; hours easy; liberal salary. Apply, with particulars, photo, or interview, T. L. Nicholls, Pharmacist, Chelmsford.

WANTED by a medical man, a Dispenser and Bookkeeper, male or female; if former, must be married; whole time; to live at a branch; must be experienced; a personal interview if possible. "A," 24 Cedars Road, Clapham Common, S.W.

WANTED, Locum, qualified, for a month. State age, terms, etc., to James Wood, Ltd., Chemists, Ilkeston, Derbyshire.

WANTED, immediately, two Assistants used to Dispensing; short hours; half-holiday weekly; no Sunday duty. State experience and salary expected (outdoors), F. W. Goodess, Pharmacist, 25 Market Street, Leicester.

WANTED, capable, energetic Assistant, unqualified; good Dispenser, knowledge of Photography. State age, salary required, references to Jennings & Co., Hoylake, Cheshire.

WANTED at once, Assistant for good-class Dispensing; £2 2s. per week and rooms. Milne, Montpellier, Cheltenham.

WANTED, South Coast, a well-qualified Assistant for Management; permanent; good Counter experience, Photography and Optics. Write 91/26, Office of this Paper.

WANTED immediately, qualified Manager for Branch, W.C. district; must be steady; well-recommended. 92/34, Office of this Paper.

WANTED, a part-time Dispenser holding the Minor certificate of the Pharmaceutical Society; salary £90 per annum. Applications for the post must reach the undersigned not later than Tuesday, June 2, from whom all particulars as to hours, etc., may be obtained. A. C. Taylor, Secretary, The Infirmary, Peterborough.

WANTED, Junior Assistant (lady or gentleman) for Light Retail and Dispensing. Apply, with particulars as to experience, references, and salary required (outdoors); Hornblow & Son, Chemists, Worcester.

YOUNG, unqualified; good-class Dispensing and Photographic; fashionable seaside resort; wanted immediately or early date. Apply, with full particulars, the Manager, Holman, Ham & Co., Sidmouth, Devon.

WHOLESALE.

SOUTH COAST.—Dry Counterman required; permanency; good wages. Please state age, experience, etc., Timothy White Co., Ltd., Portsmouth.

SOUTH COAST.—Wet Counterman required; permanency; good wages. Please state age, experience, etc., Timothy White Co., Ltd., Portsmouth.

A FIRM of Patent-food Manufacturers in the country require the services of a practical Chemist, age about 30-40 years, for Laboratory work; capable of supervising staff of workmen. Please state fullest particulars as to past experience, salary required, etc., to 91/10, Office of this Paper.

BURROUGHS WELLCOME & CO. have vacancies at their works for fully trained and qualified Chemists in connection with the Manufacture of Drugs and Chemicals, organic and inorganic, excellent prospects for capable and enthusiastic workers; previous experience in works not essential. Applications to Wellcome Chemical Works, Dartford, Kent, should state age, salary required, and give in full detail information as to experience and training.

CHEMIST wanted for the Manufacture of Medicinal Chemicals; must be a capable worker and competent to supervise the work of others; good prospects to the right man. Apply, giving full particulars of training, practical experience, age, salary required, etc., to 111/20, Office of this Paper.

FIRM of Wholesale Chemists require Junior Clerk; must be ineligible for Army service. State age, experience, and salary expected, 111/27, Office of this Paper.

INVOICE Clerk wanted, with experience of Drug-trade. Apply the Secretary, British Drug Houses, Ltd., Graham Street, City Road, N.

LABORATORY.—Major man required by London Wholesale Druggists for standardisation of B.P. preparations and to assist in general supervision of laboratory. Apply by letter, stating salary asked and previous experience, to "Z" (112/029), Office of this Paper.

PILL-MAKER and Coater.—Wanted, an experienced man, at once. Apply, stating age, experience, and wages required, to "Z," (112/29), Office of this Paper.

SMART Traveller required to represent Wholesale Tooth-brush Manufacturer and Druggists' Sundriesman, to call on Drapers, Chemists, etc.; South London districts. Apply, 94/15, Office of this Paper.

SURGICAL Instruments and Druggists' Sundries.—Junior Assistant Warehouseman wanted for permanency by London Wholesale City firm. Apply, stating experience and terms, to "A. G." (90/21), Office of this Paper.

VETERINARY and Pharmaceutical.—Representatives with sound connections amongst Veterinary Surgeons and Chemists are offered a high-class, non-competitive speciality on commission. Reply, "J. C." (91/5), Office of this Paper.

WANTED, Assistant for Wholesale Department; hours 8 to 6, Saturdays 8 to 1. State age, present and past situations, references, and salary required, Reade Bros. & Co., Ltd., Cleveland Road, Wolverhampton.

WAREHOUSEMAN.—Wanted, a thoroughly competent Warehouseman for the execution and despatch of orders, etc.; one slightly over military age preferred; knowledge of Druggists' and Perfumery goods an advantage; good salary to competent man. 110/37, Office of this Paper.

WET-FLOOR and Laboratory hands wanted. Apply by letter, stating age, experience, and wages required, "Z," (112/290), Office of this Paper.

YOUNG Pharmaceutical Chemist required in Wholesale Department of large high-class firm of Chemists in the Provinces; would be required for Testing Drugs and Laboratory Preparations, and for Experimental work. Mention age, salary desired, and customary information, "S. J." (92/8), Office of this Paper.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

3s. 6d. for 50 words or less; **6d.** for every 10 words or less beyond, prepaid. The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

BOLIVIA, South America.—Qualified Assistant for good-class business, proprietor English; three years' engagement; good prospects; second-class return passage; room provided; full references required; no objection to treat with first-class unqualified man. Address, "Bolivia," Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool.

SITUATIONS WANTED.

rs. for 12 words or less; 6d. for every
10 words or less beyond, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

[HOME.] RETAIL.

ADVERTISER desires occupation at moderate salary; qualified; single; middle-aged; London. "Galen" (94/03), Office of this Paper.

ADVERTISER; 28; unqualified; has been abroad and out of trade 5½ years; previously 7 years' experience; ineligible for Army, seeks berth. 94/30, Office of this Paper.

S Junior, with Dispensing experience. W. Stober, 28 Harlew Moor Drive, Harrogate.

S Assistant or Drug-store Manager; middle-aged. "Marcus," c/o Miss Burn, Brynecethin, near Bridgend, Glam.

SSISTANT; 9 years' first-class experience, Compounding, Front Counter, Photography; reference undeniable. 88/38, Office of this Paper.

DISENGAGED; unqualified; 42; 5 ft. 8 in.; good-class experience. "J.," 9 Warwick Place, Cheltenham.

DISENGAGED; qualified; 28; sound Dispensing experience; open for engagement, military or otherwise. 91/012, Office of this Paper.

DISPENSER, trained Nurse, Hall certificate, Private and Retail experience, requires post; London district; live out. Lebbing, 63 Upper Gloucester Place, N.W.

DISPENSER, Lady, Apothecaries' Hall qualification, desires post; Birmingham or near. 20 Strensam Road, Birmingham.

DISPENSER; qualified; reliable and experienced; Permanent or Locum; splendid references; Institution preferred. Address, "L. J.," "Mayfield," Norfolk Terrace, Brockhurst, Gosport, Hants.

DISPENSER; 26; unqualified; disengaged; 8 years' good experience, including West End; excellent recommendations. Dublin (91/35), Office of this Paper.

DISPENSER or Locum; first-class experience. "Dispenser," 58 Warwick Avenue, Maida Hill, W.

DUTY taken in return for living expenses; qualified; 42; single; varied experience. "Water" (94/030), Office of this Paper.

ELDERLY, qualified Manager or Assistant; good reference; moderate salary for easy hours. "Chemist," 4 Rushworth Avenue, West Bridgford, Nottingham.

EVENING Employment, by young man; Wholesale during day; North London preferred. "C.," 8 Wilton Square, London.

EVENINGS from 6.30; Dispensing wanted; Locum or permanent. 92/16, Office of this Paper.

EXPERIENCED Locum; qualified; excellent references; moderate terms; disengaged. "Statim," 8 Windsor Crescent, Ramsgate, Plymouth.

EXPERIENCED Lady Dispenser; S.E. district preferred; temporary or otherwise. "E. M. B.," 19 Ommaney Road, New Ross.

UNIOR, 21, tall, disengaged, requires situation. Morgan, 91 Llewelyn Street, Pentre, Glamorgan.

ADY; unqualified; used to Counter and assist with Dispensing; 12 years' experience. 26 Regent Street, Smethwick, Birmingham.

ADY Dispenser (Apothecaries' Hall), with some experience, desires post; preferably near London. 90/11, Office of this Paper.

ADY Dispenser desires post; Locum or permanency; good experience, Secretarial work, Pricing. 92/28, Office of this Paper.

OCUM or Temporary; qualified; experienced. "Chemist," 126 White Hart Lane, Barnes.

OCUM; qualified; reliable; experienced. "M.P.S.," 12 Guinea Street, Bristol.

LOCUM; qualified; first-class Dispensing and Retail experience and references; disengaged now. 92/33, Office of this Paper.

LOCUM; Manager; disengaged June 7; qualified; dependable. "Pharmacist," 165 Percy Road, W.

LOCUM-TENENS; 47; disengaged June and latter part July and August; 30 years' experience. 91/8, Office of this Paper.

MANAGER; qualified; age 47; active and good Counterman; capable Buyer; Prescriber; good-class London preferred; salary £4 weekly; disengaged. Richard, 65 Warwick Avenue, W.

MANAGER; unqualified; 29; good Salesman; reliable Dispenser; abstainer; Photographics; Doctor's Dispensership entertained. 90/12, Office of this Paper.

MANAGER; qualified; outdoors; middle-aged; permanency; reliable and thoroughly experienced; London only. "Alpha," 17 Gladstone Park Gardens, Cricklewood, N.W.

MANAGER; experienced; qualified; married; 30; capable Salesman; would entertain suitable purchase; any South-West county; disengaged. "Branch," "Uplands," Chudleigh, Devon.

PART-TIME; qualified Lady Dispenser; experienced; mornings and evenings. 91/4, Office of this Paper.

PHARMACIST (35), whose business is restricted for duration of war, will be pleased to accept evening engagements; London only. 94/20, Office of this Paper.

QUALIFIED; middle-aged; Management or Assistant; disengaged; in- or out-doors. "Cbemist," 23 Belvedere Road, Bournemouth.

QUALIFIED, disengaged, experienced, Branch Manager, Senior, or Locum in good-class business; Pbotography, Dispensing, Counter; Midlands or North. Stansfield, 33 Raikes Road, Blackpool.

QUALIFIED; 31; experienced; reliable; permanency preferred. "Pharmacist," 19 Newcombe Street, Anfield, Liverpool.

QUALIFIED, good Extractor, requires engagement; Kent or South preferred; excellent references. 93/23, Office of this Paper.

QUALIFIED; Locum; disengaged; good London and country experience. "Rhei" (91/9), Office of this Paper.

QUALIFIED (28) desires situation. Terms to 92/7, Office of this Paper.

QUALIFIED, knowledge of Dentistry, seeks engagement; disengaged June 25. 93/230, Office of this Paper.

QUALIFIED; 42; single; live at shop preferred; mutual terms; any capacity. "Bateb" (94/3), Office of this Paper.

QUALIFIED; 24; abstainer; disengaged June 7; excellent references. Evans, 10 Gloucester Road, S. Kensington.

QUALIFIED; disengaged; 40; London preferred; experienced; energetic. "Statim," 18 Dowsett Road, Tottenham, N.

SMART, qualified Manager; married; 35; Retail, Dispensing, Prescribing, Optics, Photography, and Store-trade; view working succession. 90/17, Office of this Paper.

THE Principal of Westminster College, 402 Clapham Road, S.W., strongly recommends Lady Dispenser (Hall certificate) now disengaged. Address, "W.," c/o above.

UNQUALIFIED Locum, 26, disengaged from June 5 until June 13; good experience. Lemon, 5 Birch Grove, West Acton.

UNQUALIFIED; 22; tall and smart; experienced; not afraid of work; Manchester district preferred, but not essential. 91/20, Office of this Paper.

YOUNG Lady Cashier can Assist at Counter. "Ems," 47 Narder's Road, Peckham.

WHOLESALE.

ADVERTISER, with 22 years' experience in Laboratory, Drug Rooms, and Packed-goods Department, seeks position of trust; used to Costing and Supervising staff; North Midlands or North preferred. 90/5, Office of this Paper.

ADVERTISER, experienced Drug-grinding, Sundries, Perfumery, capable Buyer, Stockkeeper, seeks berth; can compile catalogues, circulars, etc.; excellent references. "Musk" (92/15), Office of this Paper.

EXPERIENCED Traveller, excellent record, 7 years' connection, West of England Chemists, Stores, Institutions, etc., wishes re-engagement that or other ground; qualified Chemist. "Exper." (92/32), Office of this Paper.

GENTLEMAN, with thorough knowledge of Retail, desires appointment as Traveller to a first-class firm; tall, good appearance; competent Salesman; 8½ years in present position in Retail Pharmacy; first-class reference and letters of recommendation from well-known travellers and doctors; permanency. State terms to "A. W. R." (91/13), Office of this Paper.

FOREWOMAN desires a re-engagement; with years of experience in LabeHug, Capsuling, etc. 94/14, Office of this Paper.

H. B. COOPER, Withington, Manchester, represented Shirley Bros., Ltd., over 20 years, valuable extensive connection, open July; non-elashing Representation or Agencies preferred.

LABORATORY Working Foreman; 36; Wholesale or Retail. 58 Elliotts Row, St. George's Road, Southwark.

TRAVELLER, good connection, Midlands, etc., wishes to treat with first-class house; would take up good Agency on equitable terms. Address, 94/13, Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid. The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

This heading is reserved for assistants seeking situations in the British Colonies, India, and Dependence; or elsewhere abroad.

EGYPT.—QUALIFIED, 25, hard worker, active, full experience, thorough knowledge in export Drug lines of Sudan Egyptian produce, desires devoting himself to British or American firm as SUPPLYING TRAVELLER; act also as SALESMAN; good references; present occupation, partner-manager; interview arranged. Address, G. C. M., Poste Restante, Alexandria.

QUALIFIED; 28; sound experience in Dispensing and Photography; two years in Colonies. 91/12, Office of this Paper.

Refugee Belgian Pharmacists.

This section is devoted to the announcements of Belgian confrères at present in this country. We shall be pleased to insert gratis announcements of a similar character from others who are seeking situations in the Drug trade.

Cette section est réservée pour les annonces des confrères belges qui se trouvent actuellement dans ce pays. Nous serons heureux d'insérer gratis des annonces semblables de ceux cherchant des places dans le commerce des drogues.

BELGIAN Pharmacist, Liège University diploma, seeks situation in English Pharmacy or with Wholesale Drug-house or Manufacturing Chemists. Address, N. Foassart, Office of this Paper.

BELGIAN qualified Chemist, 30, married, exempt from military service, desires situation in scientific Laboratory or Wholesale house in London; four years' experience in Louvain University; six months' experience in English Pharmacy; speaks English, French, and Flemish. Irénée Verheyen, c/o Barnes & Son, 114 Fishergate, Preston.

CHEMICAL ENGINEER from Liège desires situation in a laboratory in Chemical works, Explosives factory, or Engineering works. M. Wasseige, Office of this Paper.

MISCELLANEOUS.

McADAM & TUCKNISS, Sharedealers, Bank Chambers, Blackheath, S.E. Established 1898. Telephone 81 Lee Green. Shares for Sale (free of commission, subject).—100 Brunner, Mond Ordinary, 81s. 3d. c.d.; 26 Boots Western "C" Preference, 22s. 6d.; 250 J. C. Field Preference, 14s. 6d.; 100 Lewis & Burrows 6 per cent. Preference, 12s.; 200 Mazawattee Ordinary, 1s. 7½d.; 50 John Knight, 27s. 7½d.; 170 Spratt's Ordinary, 33s.; 500 Vine Products, Ltd., £1 fully-paid Ordinary, 21s.; dividends paid, 1912 8 per cent., 1913 10 per cent., 1914 11 per cent.

Wanted (subject).—200 J. C. Field Ordinary, 5s.; Allenbury Preference; Wright, Layman Preference; Idris Preference and Debuture stock.

Every effort made to effect business for Buyers and Sellers in all Stocks and Shares. Bankers, London County and Westminster.

SHOPFITTINGS (Second-hand).—12-ft. Plate-glass fronted and solid Mahogany Counter, £8 10s.; 10-ft. ditto, £7 5s.; Perfumery Case and Desk, mirror box, glass shelves, solid Mahogany, 57s. 6d.; 6-ft. Mahogany and Bent Plate-glass Counter Case, 22s. 6d.; other bargains. Philip Josephs & Sons, Ltd., 93 Old Street, E.C.

CHEMISTS' Shopfittings.—Silent Salesman, Showcases, Window-closures, Dispensing-screens, Drug-fittings, Wallcases, Glass front Counters, Counter Drawers, etc., at lowest prices; shop-soiled second-hand; 30 years fitting pharmacies; you will save time and money by sending your requirements to George Cook, The Chemists' Working Shopfitter, Catherine Street, City Road Old Street, London.

SECOND-HAND Chemists' Fittings.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

CHEMIST.—Complete set of modern Fittings; good second-hand; 12-ft. Drug Fitting, complete; 10-ft. Glass-fronted Counter; 6-ft. Dispensing Screen and Counter; Perfumery Case and Desk; 4-ft. Mahogany Bent Plate-glass Counter Case; 6-ft. Mahogany Wall Case, £43 10s. the lot; absolute bargain; cheapest house for Window Enclosures, Glass Shelves, modern Shop Fronts, improvements, etc.; designs, estimates free. MILLS, Shop Front, Shop Fitting, Glass Facia Works, 163-5 Old Street, London, E.C. Phone 550 London Wall.

BEST cash price paid for all old Cameras, any make, also all old Photo goods, no matter how damaged; any kind you may have send them along; cash will be sent same day; no waiting; we buy all and return nothing. S. E. Hackett, 23 July Road, Liverpool, E.

N.H.I.—Those back numbers are worth money to you. Have you tried my service? You send me your Prescriptions, Account Forms, and Tariff, and I return to you absolutely ready to forward to Committee. I have a competent staff. No order too small and none too large. F. H. Richards, Prescription Pricing Expert, 59 Dudden Hill Lane, Willesden, London.

YOU SHOULD DECIDE NOW and secure these "SPECIAL CLEARANCE OFFERS"—and reap the benefit.

For 3/-	CARR. PAID.	1 Doz. assorted White and Coloured Enamels, 5½×3½ & 6×4, and 12×6 Art Spun Tints, with names and Price of each Prep. Two Prices—Limit for the 12×6 size
2/4	"	1 Doz. various Art Spun Tints, size 8×6. Names and Prices of each Prep.
2/3	"	1 Doz. assorted Enamels and Art Spun Tints, 5½×3½ & 6×4, with names and price of each Prep. One Price for each card.

F. MERTEN & CO., 72 Marlborough Rd., Holloway, London, N.

WAR WANTS EXCHANGE.

For the terms upon which announcements are inserted herein see last week's Supplement, p. lxxiii.

WANTED.

Ambrette (22/32)	Musk (22/32)
Dormiol (112/68)	Xylol (22/32)

FOR DISPOSAL.

Bona-fide buyers of the following articles are requested to communicate their exact requirements promptly to us, and we shall place them in touch with sellers:—

Acetanilid. pulv. (½ lb.)	Ichthyol ammon. (1-lb. unopened tin) (112/58)
Acetyl-salicylic acid (112/58 and 87/40) (4 oz.)	Methyl salicylate (112/58)
Cocaine hydrochloride (112/58)	Salicylic acid (112/58)
	Santonin (¼ oz.) (112/58)
	Sodium salicylate (112/58)

EXCHANGE COLUMN

One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No advertisement inserted for less than 5d.

FOR DISPOSAL.

BOOKS AND PERIODICALS.

"P. J. F.", 1904, excellent condition, 10s. Enness, 91 High Street, Wandsworth, S.W.

DRUGS AND CHEMICALS.

8 oz. morphia hydrochlor., 14s. oz., in one lot. 78/26, Office of this Paper.

MISCELLANEOUS.

SYPHON vases, 30-oz., for disposal; in good condition. Apply, 93/9, Office of this Paper.

WATER-BED, Maw's, best quality, 36 in. by 48 in., cost £4 17s. 6d. April 22; used nine days; unsoiled; new condition; what offers? Boor, Chemist, Wisbech.

WANTED.

COLLAPSIBLE tube filling machine; musk, "Xylol," and "Ambrette." Stokes, Chemist, Bristol.

A LIVE Chemist (northern preferred) to exchange formulae and labels for mutual benefit. 92/5, Office of this Paper.

WANTED, about 100 three or five gallon stone jars; wickered preferred. Send particulars and lowest cash price, Timothy White Co., Ltd., Portsmouth.

OPTICAL books; Minor, Major, Chemists' books; send prepaid for valuation; cash offers per return. Gower, Bookseller, 41 Voltaire Road, Clapham, London, S.W.

"CHEMIST AND DRUGGIST" for July 4 and 18, September 19, October 3 and 10, 1914; must be clean and fit for binding; 18. 3d. offered for the set, delivered free to "S. B." Office of this Paper.

CHEMISTS' PROFITS

DEPEND ABSOLUTELY
UPON ACCURATE WEIGHING

The appearance of the name 'Avery' upon weighing apparatus means that quite apart from expedience, volume of production, or any other consideration, quality and reliability have been the first consideration of the makers, and that a strict system of testing and inspection has eliminated the possibility of faulty work

WE MANUFACTURE ESPECIALLY FOR CHEMISTS
DISPENSING SCALES · FINE BALANCES
SPECIFIC GRAVITY AND ANALYTICAL BALANCES
CHEMISTS' PERSONAL WEIGHING MACHINES
AND
METRIC WEIGHTS

TO COMPLY WITH THE NEW TABULATION
OF THE BRITISH PHARMACOPOEIA

No. 71819
Sensitive to $\frac{1}{10}$ grain

*For particulars of the many types of
Scales especially designed for Chemists
please write to Service Department C*

W & T · AVERY · LTD

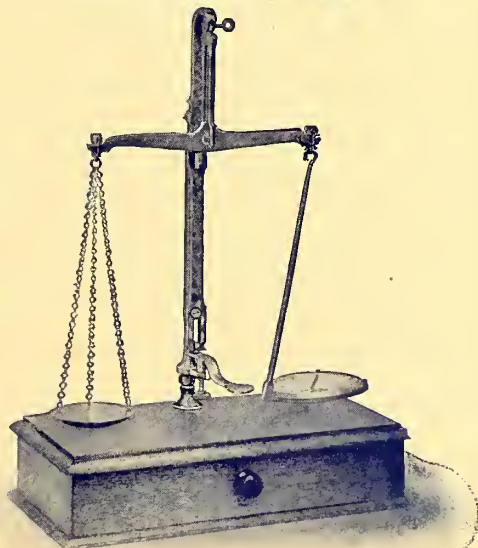
(Established 1730, in the reign of King George II.)

SOHO FOUNDRY · BIRMINGHAM

Telephone 134 Smethwick.

Telegrams: "Avery, Birmingham."

*or any of their 133 Branches and
Depots throughout the British Isles*



A Note *on* Summer Trade

THIS Summer, the Chemist who will do well is the man who has courage to buy *early* and just a little more heavily than he would if there were no War. He stands to gain not only because he may expect to see his stocks advance in value, but because our people—in spite of Mr. Lloyd George's exhortations to thrift—are buying with unusual freedom.

Our Speciality List—from which the following are selected—is full of profitable suggestions for Summer trade. Please write for it.

HEALTH SALT.



Per gross.
In 4 oz. Decorated Tins 34/-
("True" or "Phoenix")
In 8 oz. Decorated Tins 66/-
("True" or "Phoenix")
In 4 oz. Decorated Tins 30/-
("Peacock" Brand, "Red Sun" Brand, or "Blue Shield")
In 8 oz. Decorated Tins 54/-
(Special terms quoted for contracts of 25 gross and upwards).



MEDICINAL LIQUID PARAFFIN.

Fine Quality.

Very attractively labelled.

Per doz.
10 oz. round-finished pale green flats .. 12/6
4 oz. round-finished pale green flats .. 6/-

EFFERVESCENT SALINE.

	1 lb.	2 lb.	4 lb.	
No. 1 Quality in Bottles	12/6	23/6	45/-	per doz.
No. 2 " " "	10/6	20/-	37/-	"

IN TINS (free).

	7 lb.	14 and 28 lb.
No. 1 Quality	100/-	98/- cwt.
No. 2 " "	82/-	80/- "

Tins free; not returnable.

Bottles allowed for as follows, when returned
Carriage Paid—1 lb., 1/3; 2 lb., 1/9; 4 lb., 3/- per dozen. 1/- bottles (8 oz. white glass stoppered bottles, each in handsome wrapper), 84/- per gross.



BRITISH LYSOL.

4 oz., 4/- per doz.; 8 oz., 6/6 per doz.; 16 oz., 11/6 per doz. 1 gall. free tins at 7/- each.

(Each bottle fitted with aluminium measuring cup.)

Goodall, Backhouse & Company, Leeds.

A guarantee **Cadbury's Cocoa Essence** (unflavoured)
is absolutely pure & prepared only from the finest selected Cocoa